



Masterarbeit

SECURITIZATION OF CLIMATE CHANGE

**TOWARDS AN ACCOUNT OF DIFFERENT FRAMES
SECURITIZING CLIMATE CHANGE**

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INTRODUCTION

On 17 April 2007 the Security Council held its first ever session on climate change. The United Kingdom had initiated the debate to discuss the security implications of global warming, suggesting in a background paper that climate change has the potential to threaten international peace and security by exacerbating border disputes, resource shortages, migration and humanitarian crises (UN Security Council 2007a). In the same year, the Nobel Peace Prize was awarded to former US vice-president Al Gore and the International Panel on Climate Change (IPCC) for their efforts to spread information about anthropogenic global warming and potential counter-measures. In his acceptance speech for the IPCC, its chairman Rajendra Pachauri emphasized that the award was an acknowledgement of the threats to stability and human security caused by climate change. Some characterize the year 2007 as a turning point in the conceptualization of security (Brauch 2008: 12), but environmental concerns are not totally new on the agenda of security studies.

Mikhail Gorbachev, the former president of the Soviet Union, questioned the predominant conception of national security at the end of the 1980s and aimed at extending security to include other matters such as concerns with the environment (Dalby 2002: 2). In 1987 the World Commission on Environment and Development's final report "Our Common Future" underlined that environmental degradation could potentially lead to political instability (WCSD 1987). Subsequently, references to concepts like environmental security were also made in the context of the discussion of a new security agenda after the Cold War (Scott 2008: 604). In the late 1980s and early 1990s numerous scholars, too, started criticizing the traditional focus on military strategies and technological capabilities of nations (for an overview over the evolution of security studies cp. Buzan and Hansen 2009). The focus on issues such as deterrence and nuclear weapons was perceived as constraining. Instead, considerations of the environment, development issues and human rights were increasingly incorporated into the agenda (Mathews 1989). Moreover, some scholars emphasize that states – traditionally the primary referent objects of security – could also endanger the very population they were supposed to protect (Booth 1991, 1994, 2007). This broadening and widening of security studies (cp. Buzan and Hansen 2009) sparked a fierce debate. While advocates emphasized

the limited nature of traditional approaches, critiques of a broadening and widening of security studies feared that with an inclusion of “new” issues into the security agenda the concept of security would lose its intellectual coherence and analytical usefulness (Walt 1991). One of the most vocal critiques, Daniel Deudney (1990: 466-468), argues that environmental concerns and security issues are so fundamentally different that combining both would only lead to conceptual confusion and make it more difficult to find solutions to any of these problems.

Within this debate, the Copenhagen School has become popular for taking a middle-ground position. Ole Wæver and his colleagues aim at moving beyond the narrow agenda of traditional security studies without inflating the concept of security infinitely. Securitization, a term coined by Wæver (1995), describes the discursive process through which an issue is framed “as an existential threat, requiring emergency measures and justifying actions outside the normal bounds of political procedure” (Buzan et al. 1998: 23-24). It is important to note that the Copenhagen School considers the process of securitization to be highly problematic. Securitization is regarded as a failure to deal with issues in the realm of normal politics. The promotion of a strategy of desecuritization was hence central as illustrated by Wæver’s 1995 article title ‘Securitization and Desecuritisation’.

In *Security: A New Framework for Analysis* Barry Buzan, Ole Wæver and Jaap de Wilde analyze securitizations in five different sectors, one of which being the environment. Securitization within the environmental sector is characterized by three specificities: first the existence of two agendas, a scientific and a political one, second the multiplicity of actors and third the “extent to which scientific argument structures environmental security debates” (Buzan et al.: 72). Buzan et al. (1998: 2) are very “skeptical about the prospects for coherent conceptualizations of security in the economic [...] and environmental sector”. They maintain that the environment has not been successfully securitized because the measures taken in response have not gone beyond the border of ordinary politics nor have they resulted in exceptional measures. In contrast, Maria Julia Trombetta (2011) argues that securitization moves in the environmental sector were successful insofar as they resulted in policies that would have otherwise not been realized). In a similar vein, Rita Floyd (2007, 2010) shows in several of her studies that securitizations have occurred without triggering a

confrontational logic or emergency measures. The Copenhagen School was unable to capture these cases because of a narrow and rather traditionalist view of what counts as extraordinary practices legitimized by securitization, perceiving security as static and negative. In the Copenhagen School conception, security implies taking politics beyond the normal democratic realm, thereby increasing the risk for militarization and hostility (Eriksson 2001: 13). This understanding of security can be explained by the fact that the Copenhagen School's conceptualization has certain roots in realism such as the focus on maximum danger, which is retained from a classical tradition of security studies (Williams 2003: 514-515). The notion of security as extremity has been criticized as both conceptually inadequate and empirically problematic by a number of authors (Williams 2011, Neal 2009, Trombetta 2011).

In addition to the above-mentioned Security Council debate, attempts to securitize climate change could also be observed on the regional and national level (cp. for example US Government 2010a and 2010b, European Commission 2008). Moreover, a number of think tanks and NGOs as well as government advisory bodies also contributed to the discussion about global warming as a threat to international, human or national security (cp. for example Smith and Vivekanada 2007 for International Alert, CNA 2007, WBGU 2007, Stern 2007). One can clearly observe a securitization of climate change, but contrary to the Copenhagen School's assumption of security as a given with inherently negative implications, it comes in the form of several competing securitizations not all of which necessarily have problematic effects. To date, a more systematic account of these diverse securitizing moves in the literature is still missing. Trombetta (2008) considers the emerging discourse on climate security as an example of how the securitization of non-traditional sectors may transform security practices. Hans Georg Brauch (2008) notes that climate change has increasingly been regarded as an urgent political issue and has gradually been securitized in the 21st century. Scott (2008) focuses on the legal implication of securitizing climate change. Herbeck and Flitner (2010) provide a short review on the discussion on potential security implications without engaging in a systematic analysis of different actors and discursive frames.

While the Copenhagen School adheres to a formalistic model of securitization based on a grammar of security as extremity, I suggest that a framing approach to securitization allows taking into account diverse securitizing moves. In his relatively unnoticed book *Threat Politics*, Johan Eriksson (2001) poses the question of how an issue gains societal salience as a threat, which he explores using the concept of framing. Traditionally, frame analysis was done in communication and media studies (Entman 1993), but more recently it has also been applied in political science and social movement theory, predominantly to explain social movement in western industrialized states (Della Porta and Diani 2006). Framing is a process whereby an agent is developing a particular interpretive scheme (Benford and Snow 2000). Securitizations will be considered as one way of the provision of such schemes. I will particularly distinguish between the narrower concept of frames and the wider idea of images. An image can be framed in different ways, as shown by Kevin M. Carragee and Wim Roefs (2004: 26) in their account of multiple anti-nuclear frames. Likewise, environmental degradation as security threat is a certain image, which can be framed in different ways. In that sense, the treatment of environmental security in the Copenhagen School has been too abstract and negated the different ways in which environmental degradation is framed as a security image. These different frames differ in the causal mechanisms they provide for the relationship between climate change and security, in the referent objects they invoke and in the measures they propose in response to the diagnosed problem. Reconfiguring securitizing moves as an instance of framing therefore allows identifying different kinds of securitizing climate change. Hence, the aim is to identify and categorize these different ways of linking security and climate change. Based on this, the typology will be applied through the explorative analysis of a number of documents postulating a link between global warming and security, providing initial insight on which actors articulate which linkage between security and climate change.

Despite a growing body of literature on securitizations of climate change, these issues have not satisfactorily been addressed thus far. Nicole Detraz and Michele Betsill (2009) mention the existence of environmental security and an environmental conflict discourse and analyze whether a discursive shift has occurred from the former to the latter. However, their analysis is limited to the 2007 Security Council debate. Michael Brzoska (2009) argues that different actors articulate specific forms of securitizing climate change but he only provides an illustrative analysis of four policy documents. Mike Schäfer et al. (2011) focus on media

representation of climate change by scientists, entrepreneurs and other actors, but they do not explicitly address the representation of a possible climate change-conflict nexus. In that context the aim is also to identify marginalized articulations of security in the field of climate change, and how these have been silenced – an issue that has been analyzed in relation to migration by Roxanne Doty (1997/98) but is still considered to be neglected in the framework developed by the Copenhagen School (McDonald 2008). Adopting such an approach allows, in line with Claire Wilkinson (2009), to highlight the pluralities and contradictions of what security means in different contexts and settings.

The contribution of this thesis to the securitization literature is twofold. On a theoretical level, it questions the Copenhagen School's assumption of security as a given and hence securitization as something *a priori* negative which moves issues beyond the realm of normal politics and invokes a logic of confrontation. In doing so, it draws on the framing literature, which provides a more comprehensive concept of the provision of interpretive schemes, highlights how these frames differ and how different interpretation compete, challenge each other, change and transform over time. Building upon this theoretical framework, the concept of perceiving securitization as an instance of framing will be applied to the environmental sector, for which a typology of different frames securitizing environmental degradation will be developed. While the conceptual work lies at the heart of this thesis, it will be exemplarily applied to a number of policy documents in order to provide a first impression of different frames securitizing climate change.

The thesis is structured as follows: In a first part I introduce the theoretical context, i. e. the Copenhagen School's securitization approach and their account of securitization in the environmental sector. In the second part, I suggest a framing approach to securitization, based on a short discussion of framing research. Both the discussion of the Copenhagen School and the notion of framing will focus on aspects that are relevant when looking at securitization through the lens of framing, meaning that I omit the idea of regional security complexes and societal security developed by the Copenhagen School and also stick to those aspects of the framing literature that are relevant for developing the idea of securitization as an instance of framing. In a third step I shortly introduce the literature on the potential link between environmental degradation and conflicts and provide a rough

overview over recent attempts to securitize the consequences of climate change. Based on this, I develop a typology of three different frames securitizing environmental degradation, namely environmental conflict, environmental security and ecological security, in the fourth section. This typology is exemplarily applied to a selected number of reports and studies in order to come up with some initial thoughts on how certain ways of linking climate change and security relate to specific policy recommendations and who are the actors putting forward a specific frame. In the concluding section I sum up the findings and suggest avenues for future research resulting from the explorative application of the typology.

1. THEORETICAL FRAMEWORK

SECURITIZATION AND THE COPENHAGEN SCHOOL

In Europe, critical security studies have evolved around three broad schools (Van Munster 2007), the Copenhagen School with its focus on the concept of securitization, the Paris School emphasizing the role of bureaucratic actors as well as security professionals (Bigo 2000, 2002) and the Aberystwyth School – sometimes also referred to as Welsh School – defending the ideal of emancipation (Booth 2005). This thesis is situated within the debate about the concept of securitization. The term securitization was initially introduced by Wæver (1995) in his article ‘Securitization and Desecuritization’. As it is often the case, the label Copenhagen School was coined by one of its critics (McSweeney 1996). It refers to a small group of scholars formerly located at the Copenhagen Peace Research Institute (COPRI). While that contribution to the field of security studies is not limited to the securitization approach, but also encompass the idea of regional security complexes (Buzan and Wæver 2003) and the notion of societal security (Wæver 1993), these concepts are not relevant for this thesis and will hence be omitted¹.

The concept of securitization

Securitization describes the representation of an issue as an existential threat to a referent object that legitimizes extraordinary “emergency” measures (Buzan et al. 1998: 23-24). In order to identify instances of securitization, the authors use speech *act* theory (cp. Austin 1962), meaning that language is used for actually doing something. Wæver and the Copenhagen School therefore offer a discursive and formal rather than a substantive definition of security. The main question motivating securitization studies is summarized as “who can ‘do’ security in the name of what?” (Buzan et al. 1998: 45). The notion of ‘doing’ security points to the fact that security is understood as the outcome of a social process. Any referent object may become securitized, depending on the choice to phrase issues in security terms and regardless of its objective features. In different words, security is

¹ Even though it is often referred to the “Copenhagen School” in order to include all these aspects and to “securitisation studies” to describe the approach of securitisation more precisely, I will use both terms interchangeably.

regarded as a social construct. Hence, the Copenhagen School's approach is part of the widening of security studies and subscribes to a constructivist ontology.

On the other hand, the invocation of an existential threat requiring extraordinary measures also restricts the range of potential security issues and provides an argument for a limitation of the agenda of security studies (Williams 2003: 514). It clearly illustrates that the concept has roots in realist thinking, such as the focus on maximum danger, which is retained from a classical tradition of security studies (Williams 2003: 514/15). The emphasis on survival and situations of existential threats, which require taking an issue beyond the realm of ordinary politics, has been explained with reference to a Schmittian legacy and his concept of the state of exception (Williams 2003, Stritzel 2007).

In short, the Copenhagen School tries to overcome the divide between wideners and traditionalists. The aim is to move beyond the narrow agenda of security studies without inflating the concept infinitely, being aware of potential problems of broad conceptions such as human security (Huysmans 1998: 482-487). Buzan et al. (1998: 1-4) point towards three problematic aspects in applying the notion of security to an increasingly broad range of issues. Firstly, it could endanger the intellectual coherence of the concept and eventually become void. Secondly, it may lead to problematic effects associated with a mind-set of security, such as a situation of emergency measures and state mobilization more generally. Finally, the wideners' intentions to extend the agenda of security studies and include new issues such as environmental degradation or societal concerns may be based on the perception of security as a universally good thing, which represents a dangerously limited assessment that more security is always better (Buzan et al. 1998: 29).

Based on their notion of security as always socially constructed and the rejection of the idea of "real" security threats, the Copenhagen School describes itself as radically constructivist whereas in the aim to understand *existing* security constellations, Buzan and his colleagues are closer to traditionalist security studies than the Welsh School with its overarching purpose of change and emancipation (Buzan et al. 1998: 33-36). The focus on the existing security constellations is possible because the Copenhagen School conceptualizes the social constructions as "sedimented". While they are in principle constructed, they become so

stable over time that they can be taken as given when analyzing specific cases – an approach that Buzan and his colleagues (1998: 205) have characterized as “inert constructivism”. The combination of realist and constructivist perspectives – Wæver describes himself as a post-modern realist (Buzan et al. 1998: 2) – is the most interesting but also most problematic aspects of their approach (Ciuta 2009, Hansen 2011). Put differently, the attempt to synthesize both aspects into a coherent framework of analysis explains the complex and dynamic nature of the approach as well as its vulnerability to criticism (C.A.S.E 2006: 452).

Self-referentiality versus intersubjectivity

Securitization is described as a self-referential practice (1998: 24): through presenting something as an existential threat, it becomes a security issue. Wæver (1995: 55, emphasis in the original) describes it as follows: “[W]ith the help of language theory, we can regard ‘security’ as a *speech act*. In this light, security is not of interest as a sign that refers to something more real; the utterance *itself* is the act. By saying it something is done (as in betting, a promise, naming a ship). [...] The *word* ‘security’ is the *act* [...] In this instance, security is an illocutionary act, a ‘self-referential’ practice; its conditions of possibility are constitutive of the speech act of saying ‘security’”. However, for a securitization to be successful the audience must accept the securitizing move (Buzan et al. 1998: 25-26). Successful securitizations cannot be decided by the securitizing actor alone, or according to any objective criteria. Tanks crossing a border are not security threats by their very nature – they may be part of a peacekeeping operation or a wartime maneuver. Ultimately, it is irrelevant if an issue is securitized correctly or not because in any case the effects of successful securitization will cause the actor to operate in a different mode than he would have otherwise. Thus, it is neither politically nor analytically helpful to try to define “real” or objective security. Instead, the characterization of something as a security threat depends on intersubjective interpretations.

Thierry Balzacq (2005: 175-179, cp. also 2011: 5-6) and Holger Stritzel (2007) argue that the emphasis on the self-referentiality of the speech act on the one hand and the proposed intersubjective nature of security on the other hand is contradictory. Even though the Copenhagen School seemingly leans towards self-referentiality as one of their approaches’

center of gravity (Stritzel 2007: 360), as illustrated by the neglect of the audience among its units of analysis, this tension is not resolved (Balzacq 2005; 179). The lack of a clear position regarding whether securitization is primarily an intersubjective process or a self-referential practice results in diverging and sometimes contradictory understandings of securitization theory (Balzacq 2011: 6). The key in understanding the interplay between self-referentiality and the intersubjective nature of security lies in the Copenhagen School's differentiation between the speech act that constitutes the securitizing move and successful securitization. This will become clear when looking at the entire process of securitization.

Securitizing moves and conditions of successful securitization

The speech act in which the securitizing actor suggests "if we do not tackle this problem, everything else will be irrelevant (because we will not be there or will not be free to deal with it in our own way" (Buzan et al. 1998: 25) is called the securitizing move. However, to utter the word "security" does not constitute a securitizing move in itself, which must follow the specific logic and grammar of security described above. Conversely, securitization attempts do not necessarily rest upon the utterance of the word "security". Securitization can be institutionalized insofar as by saying "defense", for instance, a securitizing actor has implicitly said "security" (Buzan et al. 1998: 35).

An issue only becomes securitized when the respective audience accepts the securitizing move. One could imagine different ways of convincing the audience, namely through persuasion or coercion. However, securitizing moves cannot be imposed because its acceptance is up to the hearer, even though the discursive struggle is not necessarily power-free and as such the study of securitizations is also a study of power relation in that field (Buzan et al. 1998: 25). Security measures taken without any consent would not only result in higher costs but also be an entirely different scenario than that conceptualized by the Copenhagen School (Vuori 2008: 81). For a securitizing move to be considered successful, it is not necessary that the extraordinary measures are ultimately adopted, but the key lies in creating enough resonance for a platform from which it is possible to legitimize measures beyond the established rules of the political game (Buzan et al. 1998: 25). What constitutes an existential threat differs across the sectors and in relation to the referent object in question (Buzan et al. 1998: 21-22). The emergency measures typically

include the legitimization of the use of force, but more generally understood, the invocation of extraordinary measures allows the state to mobilize collectively (Buzan et al. 1998: 21).

Due to its differentiation between successful securitization and the mere attempt (the securitizing move in the Copenhagen School's terminology), the question of success respectively facilitating conditions is crucial. Not all securitizing moves are necessarily effective, depending on a number of conditions for a successful speech act. These success conditions fall into two categories: "(1) the internal, linguistic-grammatical – to follow the rules of the act (or, as Austin argues, accepted conventional procedures must exist, and the act has to be executed according to these procedures) and (2) the external, contextual and social – to hold a position from which the act can be made" (Buzan et al. 1998: 32). The external dimension does not only include the social capital of the securitizing actor, but is also dependent upon the characteristics of the referent object – according to Buzan et al. (1998: 33) it is easier to securitize issues that are generally considered to be threatening in themselves, for example weapons. In short, successful securitization depends upon a combination of appropriate language and societal conditions (Buzan et al. 1998: 33).

Securitizing actors, functional actors and referent objects

A securitizing actor is "someone, or a group, who performs the security speech act" (Buzan et al. 1998: 40). Common securitizing actors are political leaders, bureaucrats, governments, lobbyists or pressure groups. Nevertheless, the identification of a securitizing actor tends to be problematic because it is ultimately not the state or another collective entity, but an individual who performs the speech act. On the other hand, it appears more useful to treat the speaker as acting in the name of a collective entity (a community, the state etc.) for which the individuals are designated authoritative representatives, for example France materializing as de Gaulle (Buzan et al. 1998: 40-41). Hence, the identification of the securitizing actor should consider the logic (institutional, individual?) that shapes the action and not only be based on who personally performs the securitizing move.

Wæver (1995: 57) suggested that security is articulated "only from a specific place, in an institutional voice, by elites". According to Buzan et al. (1998: 40-42) the most significant securitizing actors tend to be 'policy entrepreneurs'. Since the realm of security is often

strongly institutionalized, it privileges the government and special security institutions. Not all potential securitizing actors are equally positioned to make a securitizing move or even engage in successful securitizations (Abrahamsen 2005: 58). Nevertheless, Buzan et al. (1998: 31-32) acknowledge that dominance of state elites in performing securitizing moves is neither static nor absolute and no one can be excluded from attempts to articulate alternative interpretations of security. The study of “unlikely securitizers” (Vaughn 2009) in the field of humanitarian aid illustrates this growing awareness for atypical securitizing actors (cp. also Barthwal-Datta [2009] on newspapers in India as securitizing actors). Hence, the field is structured or biased, but no one has the absolute power of securitization (Buzan et al. 1998: 32).

In their analysis of securitizations in the five sectors, the Copenhagen School also looks at the role of functional actors. Functional actors are those who influence the dynamics within a particular field of security without being the securitizing actor or the referent object. Buzan et al. (1998: 36) cite the example of a company who pollutes the environment and hence affects the sector, but its not a referent object and certainly does not attempt to securitize the environment.

The last important unit of analysis is the referent object. Referent objects are those (material) things or issues that are presented as being existentially threatened. In the environmental sector, the potential referent objects range from concrete issues such as the survival of a particular species to broader and fuzzier issues such as the maintenance of the ecosystem or the climate as a whole (Buzan et al. 1998: 23). While middle scale issues, especially the state, are most amenable for securitizations both macro- and micro-level threats can be constructed. In line with their concept of securitization and earlier writings (cp. Wæver et al. 1993), the Copenhagen School opens the analysis to referent objects other than the state. This makes the approach vulnerable for critique from the traditionalist camp, which emphasizes that security must always be about state relations (Buzan et al. 1998: 37). In response, the Copenhagen School maintains that the state – even though not the only potential referent object – is still in a privileged position as it is the actor most often endowed with security tasks (Buzan et al. 1998: 38). In addition to the size of a potential referent object as an important factor in successfully constructing it, a potential referent

object must also possess a certain degree of security legitimacy in terms of establishing a natural claim to survival (Buzan et al. 1998: 39). In that respect, security seems to be not entirely subjective, because it is socially predetermined what can be more easily securitized – it is, for instance, rather difficult to establish a right to survival for companies in the economic sector – even though these boundaries can change over time (Buzan et al. 1998: 39).

Effects of securitization

The effects of securitization have been subject to discussion in the literature, in particular when empirical case studies on securitization of different sectors came out (cp. among many others Neal 2009 on migration and FRONTEX, Elbe 2005 and 2006 on HIV/AIDS, Trombetta 2008 and de Wilde 2008 on the environment, Abrahamsen 2005 on the British policy towards Africa). This aspect will be discussed in more detail below – it suffices at this point to stress that the Copenhagen School considers the effects of successful securitization to be highly problematic. Securitization is regarded as a failure to deal with certain issues within the realm of normal politics. The promotion of a strategy of desecuritization was hence central as illustrated by Wæver's 1995 article title 'Securitization and Desecuritization', even though Matt McDonald (2008) argues that this aspect was partially downplayed in *Security: A New Framework for Analysis* and later publications.

The Copenhagen School's normative concern will become even more evident when looking at the difference between securitization and politicization. How issues are dealt with can be placed on a spectrum ranging from non-politicized via politicized to securitized. Accordingly, the Copenhagen School sees securitization as a more extreme version of politicization, framing the issue as above politics. However, in another sense, securitization is the complete opposite of politicization because it restrains the handling of issues to the logic of security instead of opening up the political debate, as it is the case in instances of politicization. Thus, the Copenhagen School refutes the belief that more security is always better, seeing security as a failure to deal with an issue as normal politics. Buzan et al. admit that securitization nonetheless can have tactical attractions. Because of its "prioritizing imperative" (Buzan et al. 1998: 29), securitizing attempts are means of raising awareness. Nevertheless, the authors emphasize that "when considering securitizing moves such as

“environmental security” one has to balance the always problematic side effects of applying a mind-set of security against the possible advantages of focus, attention, and mobilization” (Buzan et al. 1998: 29).

Elbe’s (2006) discussion of the ethical dilemma of securitization in relation to HIV/AIDS sheds further light at this issue. In a nutshell, he attempts to weigh the benefits of securitizing the HIV/AIDS pandemic against its normative drawbacks. Those who attempt to securitize HIV often do so instrumentally in the hope that it will accrue humanitarian benefits. Securitizing HIV/AIDS could raise awareness and resources and thus bolster initiatives to respond to the pandemic – an observation that Ragnhild Nordås and Nils Petter Gleditsch (2009) and Steen Nordstrøm (2010) have made in the case of attempts to securitize climate change. However, this strategy has attracted criticism of scholars who fear that it will result in new security dilemmas and fuel rivalry rather than encouraging the multilateral cooperation needed to address HIV/AIDS adequately (Peterson 2002/2003). Non-security frameworks have not only been regarded as more fruitful to respond to the pandemic globally, also in response to growing empirical skepticism about the precise nature of the link between the HIV/AIDS pandemic and its influence on states’ and international stability (McInnes and Rushton 2010), but in addition important normative reservations were raised (Elbe 2005, Elbe 2006) that have been similarly discussed in conjunction with securitizing climate change. These dangers of securitizing issues such as HIV/AIDS or climate change result from the unique associations with the word security, which according to Wæver (1995: 47) “carries with it a history and a set of connotations that it cannot escape”. Securitization of global warming or HIV could lead to greater levels of state mobilization and push policy responses away from the civil sector towards military institutions as well as intelligence organizations entitled with the power to rule out civil liberties and encroach social life in ways not desirable (Elbe 2006: 127, Dalby 1992). Moreover, securitization facilitates the introduction of a threat-defense logic that is not beneficial for addressing such issues because it potentially makes policy responses a narrow function of national interests (cp. Deudney 1999, Page 2010: 15, de Wilde 2008 in relation to the environment and climate change, Elbe 2006: 119 on HIV/AIDS).

SECURITIZATION IN THE ENVIRONMENTAL SECTOR

According to Buzan et al. (1998: 72) the environmental sector is characterized by the parallel existence of two distinct agendas, a scientific one shaped by (natural) science and a political one being either governmental or intergovernmental, which reflects the overall degree of politicization or securitization in the sector. The environmental sector is structured by a huge dependency upon scientific arguments, which strikes Buzan et al. (1998: 73) as “exceptional”. However, the Copenhagen School stresses that there exists no authoritative scientific assessment of threats as being true, and hence the scientific agenda is also socially constructed.

Securitizing moves often follow immediate threats such as the Chernobyl reactor catastrophe, but Buzan et al. (1998: 73) also observe an emergence of a number of politicized values in the environmental sector. Environmental policies are included in ordinary politics and political parties and departments as well as companies include environmental concerns in their every day activities. This development reflects politicization rather than securitization (Buzan et al. 1998: 73). Moreover, the authors note that often the potential threat is securitized rather than the current situation. When those scenarios are taken up by the political class they tend to become ‘merely’ politicized (Buzan et al. 1998: 74). While the environmental sector is prone to dramatic securitizing moves, one can observe relatively few successful securitizations. Radical environmentalists maintain that environmental degradation is no distant threat, using a language of urgency and securitization. However, the measures taken in response are generally restricted to the realm of normal politics, as illustrated by the example of environmental regime formation (Buzan et al. 1998: 83) and hence constitute instances of politicization. Moreover, actors might choose to ignore security implications of environmental degradation for political or pragmatic reasons and ultimately form security constellations that differ from what one might expect based on the knowledge of effects and causes, showing that pragmatism may prescribe global action (Buzan et al. 1998: 86). If securitizing moves are successful, they often securitize referent objects associated with other sectors, which are more prone to successful securitization according to the Copenhagen School. For instance, one could stress the societal and political impact of the disappearance of small pacific island states caused by global warming and

rising sea levels instead of its ecological implications and thereby relate its securitization to the political sector (Buzan et al. 1998: 83).

There exist a variety of issues, all of which are not subject to securitizations to the same degree. Basically, one can distinguish between two kinds of referent objects in the environmental sector, one being the environment as such or a particular part of it and the other one being the connection to an achieved level of civilization, which might be endangered by environmental degradation. Buzan et al. argue (1998: 75-76) that the most influential interpretations of environmental security do not address threats to the nature itself, but refer to its nexus with humanity or a part of it. Threats to the natural system that do not endanger parts of the civilization have only limited influence on the discourse of environmental security whereas disruptions of the environment that pose a threat to parts of the human species are identified as the main rationale behind the concept of environmental security (Buzan et al. 1998: 79). System level referent objects such as the nature or its nexus with civilization appear prominently in the environmental security debate. Nevertheless, related securitizing moves at the global level have only led to significant politicization according to Buzan et al. Successful securitization has been very limited and could be observed predominantly at the local or regional level, where the actual consequences of environmental degradation, for instance in the form of acute disasters, occur.

2. SECURITIZATION AS FRAMING: A RESPONSE TO SHORTCOMINGS OF THE COPENHAGEN SCHOOL?

While the Copenhagen School proposes a formal speech act model of securitization, I argue that it should be understood as framing. Conceptualizing securitization as framing allows for a variation of its singular linguistic structure. Hence, it better captures the diversity of different securitization moves, for instance in the environmental sector, that the Copenhagen School cannot account for and hence addresses the theoretically problematic notion of a fixed meaning of security as extremity discussed in the literature (cp. Trombetta 2011, Williams 2011, Stritzel 2011 and 2007, Balzacq 2011 and 2005).

In order to show how a framing approach to securitization adds to our understanding of securitization, I will first shortly introduce the concept of framing and then illustrate how framing constitutes a response to the shortcomings of the conception of securitization as advanced by the Copenhagen School. In doing so, I will focus on two particular aspects that can be addressed by interpreting securitization as framing, namely the fixed meaning of security as extremity (and the related bias towards middle range collective referent objects) and the temporal fixity that neglects changes of the notion of security over time through processes of securitization. Both aspects have been previously addressed in the framing literature, which provides insight into how to account for different frames securitizing an issue as well as the dynamic procedures of frame contestation and dispute. A third issue that arises when looking at securitization through the lens of framing are its normative implications on which I will, however, only be able to present some introductory thoughts within the scope of this master thesis.

THE CONCEPT OF FRAMING

Framing research originates from the sociological work of Goffman (1974) and has been applied in communication and media studies (Entman 1993) as well as in social movement theory, predominantly to explain the emergence and actions of social movements in western industrialized states (Della Porta and Diani 2006). Partially owing to its

interdisciplinary nature that led to disperse foci and fields of application, framing has been characterized as a fractured paradigm rather than a coherent research program (Entman 1993). However, its potential to add to our understanding of securitization does not hinge on its strengths as a unified research paradigm, but on its potential to highlight both the existence of *different* frames securitizing an issue and the importance of frame disputes being part of processes of securitization.

Goffman (1974: 21) defines frames as schemes of interpretation that enable human beings “to locate, perceive, identify and label” occurrences. Thus, frames serve to both render certain events meaningful and simplify or condense interpretations of reality. In a similar manner, Robert D. Benford and David A. Snow (2000) describe framing as a process of the construction of meaning and the development of a particular interpretive scheme in their influential article ‘Framing Processes and Social Movements: An Overview and Assessment’, which contributed to the re-vitalization of framing research in the new millennium. Since human beings cannot grasp the world in all its complexity, they try to infer underlying causal relationships of a phenomenon observed (Heider 1930). Building upon this observation that individuals cannot fully understand the world, Goffman (1974) suggest that they resort to schemes of interpretation (or what he calls frameworks) – various ways of looking at and interpreting events.

This process involves selection and the attribution of salience. By omitting or including particular aspects of the phenomenon, frames highlight certain interpretations and direct attention away from others (Entman 1993: 54). During this process, the inclusion of certain aspects of the reality described is as important as their exclusion. Frames highlight certain aspects of an issue by the placement of particular information, repetition or by linking them with culturally significant symbols, for instance national security in the case of the US (Entman 1993: 53). In doing so, “the over-communication of some facts and the under-communication of others” (Goffman 1959: 141) are crucial to convince the audience of a particular story. It is important to note that the presence of a certain frame in a text does not guarantee its influence, which depends on the receiver’s thinking and acceptance (Entman 1993: 53), just like a securitizing move requires the audience’s approval according to the Copenhagen School (Buzan et al. 1998: 31).

The research interests of framing approaches are generally broader than securitization theory, since not all issues are framed in security terms. Moreover, both approaches differ insofar as studies on particular frames analyze the exact (causal) link between the problem diagnosis and policy response while the Copenhagen School proposes a framework where the fixed meaning of security as extremity uncontestedly and automatically leads to extraordinary measures. The analysis of different frames securitizing an issue, however, constitutes a significant departure from the singular linguistic structure of security identified by the Copenhagen School. Looking at securitization through the lens of framing thus raises the question of whether such a departure from the fixed grammar of security as extremity undermines the whole concept of securitization as developed by the Copenhagen School, which I will address below.

THE COPENHAGEN SCHOOL'S UNDERSTANDING OF SECURITY

Buzan et al. do not consider all instances where the word "security" is uttered as securitizing moves. Instead, their theory applies only to issues that are presented according to the specific pre-defined grammar of security (Buzan et al. 1998: 25). Securitization is a speech act that has a particular rhetoric structure and follows specific rules. The Copenhagen School draws upon Austin's concept of performative utterances (Austin 1962) that create a new reality, namely the modus of exceptionality in the case of securitization. In the words of Buzan et al. (1998: 26, emphasis in the original) security is about "the staging of existential issues in politics to lift them above politics. In security discourse, an issue is dramatized and presented as an issue of supreme priority; thus by labeling it as *security*, an agent claims a need for a right to treat it by extraordinary means". This appeal to survival invokes a threat-defense logic and the inscription of enemies (Wæver 1995: 54). For the Copenhagen School, the label security is connected to a specific mindset and problematic practices associated with war and emergency that are not open to negotiation or political debate. Hence, their understanding of security is essentially zero-sum and antagonistic (Trombetta 2008: 588). As a result, the Copenhagen School imposes a problematic fixity on the logic of security developed from the realist tradition and tends "to essentialize a specific logic of security and the practices associated with it" (Trombetta 2011: 148). Buzan and his colleagues have limited their analysis to this singular logic of security – what Wæver (1995:

57) calls the “securityness” of security, i. e. the quality that makes something a security issue in international relations – and explore the implications of that logic, taking for granted that it subsumes all other potential notions of security.

This fixed meaning of security as extremity has been questioned on theoretical and empirical grounds. Much of this criticism was summarized in the edited volume *Securitization Theory* (Balzacq 2011) whose authors *inter alia* criticize the notion of security developed by the Copenhagen School as too formal and too constraining to cover the diverse strategies, forms and dynamics that securitizing moves can have (Williams 2011: 212). In a similar vein, Huysmans (2006) argues that the conceptual link between emergency thinking and securitization hinders to grasp security practices in its modern form. As a result, Huysmans considers the attempts to draw a clear-cut line between extraordinary and normal measured in today’s management of unease neither necessary nor analytically useful (see also Pram Gad and Petersen [2011: 320] for a summary of this position).

Stritzel (2007: 366, emphasis in the original), one of the most vocal critics of the fixed understanding of security as extremity, maintains that the Copenhagen Schools definition of securitization reduces it to “a static event of applying a (fixed) meaning (of security as exceptionality) to an issue rather than seeing it as an always (situated and iterative) process of *generating* meaning, i.e. as a dynamic (social and political) sequence of creating a threat text”. He (2007: 367) condemns the definition of security in terms of exceptionality as empirically inadequate to capture a number of current security practices that are situated at and deal with levels below a state of exceptionality. In particular the change of practices and understandings of security after the Cold War has rendered the Copenhagen School’s understanding of securitization – tied to a specific notion of security – increasingly analytically useless to capture those practices that are occurring below the level of a state of emergency (Stritzel 2011: 346, cp. also Guzzini [2011: 335] on the historicity of the Copenhagen School’s notion of security). While Stritzel makes his argument in the abstract, Trombetta (2011) reaches a similar conclusion in her discussion of securitization dynamics in the environmental sector. She observes a notable tension between the attempts to identify the pre-defined securityness of an issue (Trombetta 2011: 136) and the empirically driven

analysis of securitization in the book's chapter on the environmental sector that is responsive to the sector's specificities (Buzan et al. 1998: 71-93).

Relating the criticism about the fixed meaning of security to the impact of securitization, Brzoska (2009) suggests that security can have different implications and proposes to conceptually decouple the definition of security from its connection with the military or the police (Brzoska 2009). In that context, he poses the question whether framing an issue as a security matter can have different outcomes depending on the underlying understanding. Likewise, Trombetta (2011: 135) doubts that the consequences of evoking security are as fixed and unchangeable as the Copenhagen School assumes. She concludes that transformation of issues into a security issue can follow different modalities or logics that interact and coexist (Trombetta 2011: 139, 2008: 588) – an observation that already hints at the dynamic process of constructing competing notions of security threats.

In addition to the focus on the fixed grammar of security, the Copenhagen School fails to provide an adequate instrument of analysis for the dynamic processes involved in the constructing and re-constructing of security issues. "Trombetta's powerful study" (Hansen 2011: 362) on securitization in the environmental sector shows how securitization of non-traditional security issues such as climate change potentially challenges and transforms existing security practices over time up to the point of breaking with the modalities of security described by Buzan and Wæver (Trombetta 2008, 2011: 142). The Copenhagen School cannot capture this process due to two major reasons (Trombetta 2011: 141): Firstly, Buzan and his colleagues underestimate that different contexts can have different logics and practices of security and that they can influence and challenge each other. While the Copenhagen School refers to the existence of specific referent-object threat dynamics in the five sectors (Buzan et al. 1998: 7-8, see also Albert and Buzan 2011: 414), the possibility of different constructions of security within a particular sector is neglected. Secondly, the logic of security itself can change as new principles, actors, capabilities and threats gain relevance and different security discourses emerge (cp. also Huymans 2002: 58). In the case of ozone depletion, appeals to security have led to the first international agreement based on precautionary principles, and in the case of the environmental conflict, the debate has contributed to promoting preventive approaches to security (Trombetta 2011: 143-147).

Hence, the logic of security captured by Buzan et al. only represents a specific case of what may count as security, which is open to contestation and change. As a consequence, Trombetta (2011: 143) calls for the development of an approach that explains occurrences of such security practices but avoids subsuming all observable constructions of threats under the logic of security proposed by the Copenhagen School.

This raises the crucial question whether a departure from the fixed grammar of security leads to an amorphous and too broad definition of security that the Copenhagen School initially tried to avoid (Buzan et al. 1998: 1-4) and whether resulting conceptualizations of security can still be subsumed under the umbrella of securitization theory. This question if there exist limits to changed notions of securitization inherent in the original concept was discussed previously in the literature. In his development of the concept of 'threat texts', Stritzel (2007: 372) acknowledges that the main boundaries to his altered approach lie in the concept of securitization itself. Michael C. Williams (2011: 213) also asks whether a contextual theory of securitization amounts to a complete change of the original theory and concludes that one can perhaps have "separate, coherent readings of securitization", given that all have the basic idea of proclaiming a state of emergency as a starting point.

Nevertheless, different scholars aiming to contextualize securitization theory have differently handled the question if securitization theory must be based on the abstract, formal and universal definition of security as extremity proclaiming a state of emergency: Some adhere to the grammar of security proposed by the Copenhagen School whereas others stress that in certain contexts equating security to a state of emergency may be misleading, resulting "in a failure to see how security logics can have effects even if they do not conform to the criteria of existential threat and emergency measures" (Williams 2011: 214). The latter approach leads to a number of related challenges. Security that is defined entirely contextually can include a certain sense of unease or risk without invoking extraordinary measures in response to an existential threat (Williams 2011). Such an understanding may lead to a very strong widening of the definition of security (Huysmans 1998: 482-487). Moreover, if not identified on a basis of a threshold of breaking free of rules, it becomes more difficult to differentiate between "ordinary" policy changes and those that are security-related (Williams 2011: 214).

The key issue is then how to identify securitization if not through the use of a fixed language of extremity – an aim that is additionally complicated if one perceives the grammar of security as an ideal type that is very rarely to be observed in reality – be it in the military sector or elsewhere (see for example Diez et al. [2006: 5,26] whose reference to different “degrees of securitization” suggests such an understanding). One proposal is to make policy change a criterion of successful securitization (Salter 2011, Sjostedt 2011) whereas another suggestion attempts to replace the requirement of extremity by a certain threshold of intensification (Williams 2011). Alternatively, one could focus on fear as a promising trajectory (Williams 2011: 218-221), albeit this approach risks becoming as amorphous as it has been often criticized in relation to the widening and deepening of security studies. Even advocates of a contextualization of securitization studies such as Williams (2011: 218) discuss whether “the effect of emergency in the sense of a fundamental breaking of the rules remains central for security analysis, since it provides the limiting condition (...)”.

Nevertheless, the Copenhagen School’s response, i. e. the formalism described above, is only one potential answer to this methodological challenge of analyzing securitization moves following different logics of security without risking its analytical value and distinctiveness (Williams 2011: 213-215). I suggest that reconfiguring securitizing moves as an instance of framing allows identifying different kinds of securitizing climate change, in which frames stick to the basic idea of securitization, but construct the threat differently, refer to different referent objects and propose different kinds of responses. In doing so, a framing approach to securitizing preserves the analytical distinctiveness of security – the construction of an existential threat – but offers an analytical tool to assess how this threat is constructed, in reference to which objects and how this influences the proposed responses. The notion of different frames securitizing an issue shows when security practices occur that work according to the logic proposed by the Copenhagen School, but also captures security logics that do not entirely conform to this fixed grammar of security.

DEPARTURE FROM THE FIXED UNDERSTANDING OF SECURITY AS EXTREMITY

In order to understand how a framing perspective on securitization addresses the fixed meaning of security, I will introduce the framing approach to securitization and outline how it highlights the different ways of framing a security image. In a second step, I will show how the understanding of securitization as framing adds another dimension to the analysis of securitizing frames, namely the (causal) connection made between the existential threat, the referent object and the proposed measures. Finally, I will demonstrate how the conceptualization of securitization as instances of framing addresses the bias towards collective middle range referent objects inherent in the Copenhagen School's conceptualization of security.

Different ways of framing a security image

The problem of a fixed grammar of security was addressed similarly in relation to framing. The concept ambiguously describes two understandings of frames, namely frames as a rather fixed structure (framing as grammar) and the less formalistic understanding of frames as gradually generated content (Benford 1997: 413). Just like the Copenhagen School is concerned with the social construction of security, framing approaches deal with the social construction of meaning. In doing so, they account for multiple versions of reality (Benford 1997: 409) and hence alert to the fact that there also exist multiple ways of constructing a security threat.

My suggestion that there exist different ways of framing a security threat is supported on theoretical grounds and by evidence from different cases. In his discussion of the limits of a formalistic speech act approach to securitization, Stritzel (2007: 367) stresses that a single text may contain traces of diverging discourses that securitize a certain issue. Likewise, Andrew Neal (2009: 351) notes in his case study on FRONTEX and securitization within the EU that the securitization of migration "cannot be understood through a single overarching logic". Practices of securitizing actors have grown too complex, diverse and plural to be captured by the nominalist understanding of security proposed by the Copenhagen School (Neal 2009: 351). Based on theoretical considerations about the status of securitization theory, Stefano Guzzini (2011: 432, emphasis added) describes the purpose of securitization

as an empirical theory as “knowing *different security discourses* and analyzing how the “other” is constructed within each”. In particular the case studies of securitization moves in the environmental sector highlight the existence of such different security discourses. Security practices adopted in response to environmental degradation do not all reflect an antagonistic logic of war but some are based on conceptions of human security (Trombetta 2011: 147). In the case of the ozone depletion, one could also observe contrasting constructions of threats in the 1970s and 1980s, in particular a focus on ozone depletion as a threat to the environment as opposed to securitization of the ozone hole as an existential threat for human health (Trombetta 2011: 144). Karen Litfin’s work on the ozone regime also shows competing conceptualizations of the problem at hand (Litfin 1994). Based on the dramaturgical theory she adopts from Goffman (1959), Salter (2008: 328, emphasis added) argues that “we can classify the *different types of securitizing moves* that all share similar conventions, narratives, characters, and tropes”. He distinguishes these types of securitization moves according to their setting, for instance popular, elite, technocratic, and scientific, rather than according to their discursive logic as I will suggest below.

These examples show that many studies have already addressed the existence of different ways of securitizing an issue. However, they have done so without an explicit theoretical framework in mind. I suggest that a framing perspective on securitization can best capture these different securitizing moves. In this context, the differentiation between the narrower concept of frames and the wider idea of images² that was made in the framing literature is helpful. A single image can be framed in different ways as described by Carragee and Roefs (2004: 218) citing the example of a variety of anti-nuclear frames that concur in their assessment of nuclear energy as problematic but differ with respect to the problem identification and the suggested solutions. In other words, an issue can be shaped by competing frames offering divergent interpretations of the problem at hand. I argue that the discursive construction of a security threat is a specific image that can be framed in different ways. In that sense, the treatment of security in the Copenhagen School has been too abstract and has negated the different ways in which, for instance, the environment is framed in a security image.

² Instead of using the term image these overarching frames on a higher level of generality are also describes as meta-frames.

Based on a similar criticism of the Copenhagen School's notion of securitization as too static vis-à-vis the dynamic process of the evolution and change of the meaning of security, Stritzel develops the conceptual experiment of what he calls 'securitization, the translation' (Stritzel 2011: 343-344). While this concept provides an alternative to the traditionalist and essentialist concept of security developed by the Copenhagen School, it does not address some issues related to the fixed grammar of security that a framing perspective tackles: Stritzel's translation approach to securitization highlights the travel of the concept of security over time (Stritzel 2011: 344), but provides little insight into the process of (re-)producing meanings of security and in particular on how these understandings of security differ, which can be analyzed with reference to different frames, their diagnostic and prognostic dimension as well as the different referent objects they invoke. Moreover, a translation perspective takes into account changes of meaning and practice of security, but its reference to the analysis of such understandings becoming temporarily stable and hegemonic (Stritzel 2011: 346) tends to neglect the simultaneous existence of different meanings of security that can be captured by the concept of frame disputes. For Stritzel (2011: 346), alternative notions such as human or global security do not stand for themselves, but are a part of the production of *the* meaning of security – an assessment that differs from the framing perspective developed in this thesis.

The added dimension of problem evaluation

De Wilde (2008: 596) suggests in his analysis of securitization in the environmental sector that it "triggers two debates: one about underlying risk assessment, and one about strategic answers". This observation highlights two ways in which frames differ, namely the problem diagnosis and the related responses. Framing approaches distinguish three main dimensions of frames, diagnostic, prognostic and motivational (Benford and Snow 2000, cp. also Gerhards and Rucht 1992). The diagnostic dimension refers to the identification of a particular problem. Such attribution processes lead to the articulation of a solution in response – what Benford and Snow (2000) call the prognostic dimension that specifies what needs to be done. This development is overlapping and marked by feed-back processes: the identification of specific challenges for and causes of the problem identified tends to constrain the range of possible 'reasonable' solutions while *vice versa* the strategies considered to be reasonable influence the identification of a problem (Benford and Snow

2000: 616, Benford 1987) – an observation that Hajer (1995: 6) has made concerning acid rain, for which there exist different solutions which all depend on the framing of the problem (cp. also Hansen's [2011: 363] observation that solutions to security problem vary across modalities, which she defines as the "logics through which referent objects, threats and securitizing actors are linked"). The third dimension, called motivational, implies a "call to arms" (Benford and Snow 2000: 617) including a rhetoric of urgency and severity.

All these dimensions are also features of a securitizing move, where the diagnosis (existential threat to a referent object) is followed by the articulation of a proposed solution (extraordinary measures), which is closely tied to the motivational dimension (including a rhetoric of urgency to justify the measures beyond the boundaries of the normal political game). However, scholars have further elaborated on the diagnostic dimension of frames, maintaining that it both consists of an identification of a particular problem and a (causal) interpretation of this very problem. Seen in this way, frames do not only diagnose, but also more precisely evaluate the issue at hand (Entman 1993: 52) and provide a blueprint of how the evidence is to be interpreted (Rein and Schön 1991: 262, cp. Hajer [1995: 56] on the function of what he calls storylines to establish a link among different characteristics that point towards the threatening phenomenon). The diagnostic dimension requires the identification of whom or what to blame as well as the sources of causality (Benford and Snow 2000: 616). In other words, changes in the precise description of a problem affect how the audience interprets the situation, including attributions of responsibility and (causal) treatment (Scheufele 2000).

This emphasis on the precise diagnosis of the problem including (causal) links between the problem and its outcome goes beyond the finding of the Copenhagen School that the presentation of something as an existential threat is necessarily followed by a call for extraordinary measures (Buzan et al. 1998: 20). In other words, *how* an issue is presented as an existential threat to a referent object or *why* it is considered as a problem in the first place, meaning the (causal) connection made between threat and threatened object, and not the mere fact that something poses an existential threat, is crucial (see table on page 35). Hence, the link between problem diagnosis (existential threat) and policy response (extraordinary measures) that seems uncontested in the Copenhagen School's framework

where an existential threat is automatically followed by emergency measures, can be literally 'feazed' (cp. Balzacq [2009] and his development of a sociological model of securitization in which successful securitization does not necessarily lead to the adaption of exceptional measures).

Seemingly, not all instances of successful securitization have led to extraordinary measures, which is difficult to explain within the framework provided by the Copenhagen School (cp. Neal 2009 on migration). In relation to climate change, Detraz and Betsill (2009: 308, emphasis added) found that "the discursive framework used to discuss *the relationship* between security and the environment has direct implications for the policies likely to be developed in response to global environmental challenges such as climate change". In her discussion of Barnett's demand for a human centered notion of environmental security to counter the problematic consequences of successful securitization, Trombetta (2011: 139-140) poses the question why such an appeal to human centered environmental security should be different from state-centric appeals to environmental security. The dilemma she illustrates can be explained by the understanding of security practices as inescapable and unchangeable according to the Copenhagen School. If, however, different ways of framing the environmental degradation security nexus are allowed into the picture, and in particular different explanations of how environmental degradation poses an existential threat (and to what), a human security centered notion of environmental security can effectively lead to different policy recommendations.

The automaticity between the diagnosis of an existential threat and the recommendation of emergency measures postulated by Buzan et al. is problematic within the Copenhagen School's framework for two reasons. Firstly, the concept of "extraordinary measures" may be underspecified in the sense that their qualification as "extraordinary" may depend on the processes through which they are agreed or on their content. The former understanding of extraordinary measures is advanced by Trez (2002: 67) who argues that emergency measures are characterized by a departure from the normal democratic decision-making process (cp. also Huysmans 2011: 372). Based on a similar procedural understanding of extraordinary measures, Abrahamsen (2005: 59, emphasis added) doubts that the British Policy towards Africa has been securitized because "policies toward the continent are still

subjected to the *normal rules of the liberal democratic political game*“ (cp. also Buzan et al. 1998: 29). On the other hand, the extraordinary character of a measure can also refer to the content of the means used (cp. Wæver 1995: 55 and Buzan et al. 1998: 26).

Secondly, the lack of attention paid to the (causal) link made between an existential threat to a referent object and the proposal of emergency measures can be partially explained with the origin of the concept of securitization. In the 1995 book chapter ‘Securitization and Desecuritization’, Wæver spells out the characteristics of security, namely a threat to the survival of a unit that justifies the mobilization of maximum efforts and aims at minimizing the influence of the problematic logic associated with securitization (Wæver 1995: 55). In other words, he focuses on the outcome of securitization and the question how such a process could be reversed, as expressed in the idea of desecuritization, instead of analyzing the political process that leads to the lifting of issues above politics. This initial focus on the problematic nature of successful securitization was supplemented by a more detailed account of the political process involved in the construction of security threats in the 1998 book *Security: A New Framework for Analysis*. However, Buzan et al. (1998) do not address the dimension of how something poses an existential threat to a referent object. In their description of the goals of securitization studies, they refer to securitizing actors, threats, referent objects, success condition and impacts as research goals, but omit how securitization moves link the threat, the threatened object and the proposal of extraordinary measures. A framing perspective on securitization with the focus on how a diagnosis exactly relates to the recommendation of specific measures fills this gap (see table below).

Framing (Entman 1993, Beford and Snow 2000)	Securitization (Buzan et al. 1998)	Securitization as Framing
Problem definition (diagnostic dimension according to Benford and Snow 2000)	Existential threat to the referent object	Existential threat to the referent object
(Causal) explanation, evaluation and/or interpretation of the problem (also diagnostic dimension)	<i>Not addressed</i>	(Causal) connection between existential threat and referent object
Proposed solution (prognostic and motivational dimension)	Extraordinary, Emergency measures	Solution according to evaluation of problem (possibly, but not necessarily extraordinary measures)

In conclusion, a framing perspective on securitization does not only highlight the possibility of different ways of framing a security threat, but also provides a starting point to analyze

how these frames that I call securitizing frames differ. While securitizing moves as described by the Copenhagen School also comprise a diagnostic dimension (existential threat to a referent object) and a related prognosis what to do (emergency measures), the framing approach makes visible that securitizing moves differ in how this evidence is to be interpreted, i. e. the (causal) link they make between threat, threatened object and the proposed response. Conceptualizing securitization that way, one can preserve the notion of an existential threat and nevertheless explain how variations of the fixed structure lead to different policy recommendations that do not all evoke a state of emergency.

Addressing the bias towards collective middle range referent objects

Aside from the (causal) connection made between the threat and the threatened object, frames also differ in terms of the security object they invoke. The status of the referent object within the Copenhagen School's framework has been the starting point of a lively discussion. According to Buzan et al. (1998: 31) there exist no objective criteria according to which certain issues are a matter of security and others are not. However, they maintain that some issues can more easily be securitized on the basis of their socially established claims to survival. The Copenhagen School's understanding of security referent objects has been criticized by a number of scholars due to neglect of objective or so-called "brute" threats (Knudsen 2001, Balzacq 2011: 12) whereas others maintain that their view of certain referent objects, in particular identity in relation to societal security, is far too objectivist (McSweeney 1996).

As outlined above, the Copenhagen School is skeptical about the possibility of securitizing referent objects both as large as the ecosystem or humankind and as 'small' as the individual, especially because it is considered as difficult to find an audience for the securitization of such referent objects (Buzan and Wæver 2009: 253). In his discussion of the human security agenda, Buzan (2004: 369) argues that focusing on the individual as the main referent object eliminates the distinctiveness on the international security agenda that is about the interaction among social collectivities. Moreover, individuals can rarely establish wider security legitimacy (Buzan and Wæver 2009: 255, on the diverging view that individual security could be very well studied from a Copenhagen School perspective see Buzan and Wæver 1997: 245). At the other end of the scale, potential referent objects at the system

level cannot easily compete with middle scale referent objects, too (Buzan et al. 2009: 255). Despite the introduction of the concept of macrosecuritization in order to account for macro level security threats, macrosecuritizations are in principle not considered as existing independently of middle level referent objects such as the state or other collective entities (Buzan and Wæver 2009). For instance, global warming as a macro level threat is ultimately discussed in relation to the claim of survival of particular communities, for example the Alliance of Small Island States (AOSIS), which are threatened by rising sea levels (Buzan and Wæver 2009: 265).

Accordingly, collective actors are conceptualized as the main agents of security provision and as possessing a claim to survival in their own right. The Copenhagen School adopts a vision of security centered on collective middle range referent objects that is shaped by their understanding of security as extremity. The antagonistic logic of security and the problematic fixity of security practices “precludes the possibility of analyzing the transformation of security units, at least in universalistic terms” (Trombetta 2011: 138). Physical threats such as climate change are only considered to the extent that they affect the fate of humankind or particular communities. Macrosecritizations on the planetary level, for instance the securitization of the global ecosystem, otherwise lack an “earthly other” (Buzan and Wæver 2009: 261-264). This necessity of such an “other” in order to construct a referent object postulated by the Copenhagen School makes it difficult to conceptualize the environment as a referent object with a legitimate claim to survival and points towards the enemy logic inherent to the Copenhagen School’s vision of security, which is also illustrated by the statement that macrosecuritizations “generate zero sum conflicts” (Buzan and Wæver 2009: 265).

A framing approach to securitization facilitates the analysis of different referent objects ranging from the individual to the system level because of its departure from the fixed notion of security as antagonistic and the related bias towards middle referent objects. The focus on securitization as being most amenable in relation to middle range referent objects is not an objective feature of security but became naturalized through a historical process (Williams 1998: 439). In addition, framing also highlights the existence of different referent objects insofar as the selection of ‘objects of attention’ is one function of framing (Carragee

and Roefs 2004: 217). In a similar manner, McCombs (1997: 37, emphasis) suggests that “framing is the selection of a restricted number of thematically related attributes for inclusion on the media agenda when a *particular object* is discussed”.

In conclusion, a framing approach to securitization highlights the importance of referent objects other than particular communities because, firstly, it departs from the fixed understanding of security as inherently antagonistic and zero sum which is closely related to the focus on middle range referent objects such as the state, and secondly, framing research itself highlights how frames also differ in terms of the selection of their respective referent objects.

DEPARTURE FROM THE TEMPORAL FIXITY: FRAME DISPUTES AND CONTESTATION

In addition to the analysis of different ways of framing a security image, a framing approach to securitization also provides a tool to analyze how these different ways of constructing a security threat, for instance in the environmental sector, overlap, merge and compete with each other, as I will show in this section.

In her discussion of the environmental sector, Trombetta (2011) observes that different logics of security can be brought into being through the securitization of non-traditional security issues. This examples illustrates the other key problem of the fixed meaning of security as extremity: it fails to account for the fact that securitization is a dynamic process during which different notions of security evolve, change and challenge each other over time. Perhaps surprisingly, Wæver (1995: 50) discusses the gradual evolution and transformation of the label security during history, from a strong military identification towards an image that stresses challenges to sovereignty that do not necessarily originate in the military sector. However, once he has established the (current) understanding of security, he applies this logic to other sectors without taking into account the possibility of an ongoing transformation (Wæver 1995: 51). Hence, Wæver “‘closes’ the meaning of security by fixing it as ‘politics of exception’” (Stritzel 2011: 347) and does not allow for an evolution of the meaning of security beyond traditionalist or realist notions – a prioritization

of a stable understanding of security rather than a focus on conflicts over different meanings of security that as also been explained with the focus on the speech act as opposed to a processual understanding of securitization (Pram Gad and Petersen 2011: 318).

In contrast to this lack of attention for the dynamic process of (re-)constructing security, the understanding of framing as a dynamic process is inherent in its definition. Benford and Snow (2000: 614, emphasis added) describe framing as “an active, processual phenomenon that implies agency and *contention* at the level of reality construction”. Framing is contentious in the sense that it involves the construction of new frames that do not only differ from existing ones but also challenge them. This phenomenon was observed in relation to the securitization of environmental degradation, which partially shifted from a state centric to a human security focus (Trombetta 2011: 147), without explicitly relating it to the concept of frame contests. Conceptualizing the changing notions of security as frame contestation provides a framework for the analysis of these developments and highlights the struggle over meanings of security.

Interestingly, the framing perspective, too has suffered from static tendencies in the past (Benford 1997: 409). Some scholars have advanced a static conception of framing by ignoring the construction of meaning over time and especially the role of framing contests that shape this process (Carragee and Roefs 2004: 218). Moreover, Benford (1997) criticizes a focus on frames as static ‘things’ that, once established, remain stable rather than understanding framing as dynamic ongoing processes of generating interpretations of the problem at hand (cp. also Reese 2007). Early framing literature often neglects this complexity of framing processes and treats frames in a singular fashion as though they depict a singular reality (Benford 1997: 422). However, this criticism was raised even before securitization theory developed, so that securitization can benefit from that discussion, in particular from a number of publications that highlight the dynamic nature of framing, associated with their social construction, negotiation, contestation and transformation.

In their seminal article ‘Framing and Social Movements’, Benford and Snow (2000) describe how frames develop through three overlapping processes, which they call discursive, strategic and contested. Two subcategories are of particular interest to highlight how

securitization can be re-defined as a dynamic process. Frame transformation as one strategic process related to frame development refers to the changing of old understandings and meanings or the generation of new ones in order to make the argumentation more familiar to the target group – an observation that Trombetta (2008) has made in relation to the framing of the security implications of climate change in terms of environmentally induced wars, which is a kind of reasoning that is familiar to national security experts. Hence, securitizing moves may take different forms in order to conform to particular institutional settings (cp. Salter 2011, Léonard and Kaunert 2011) or may be re-negotiated because actors find that they cannot escape the basic terminology, for instance that of security, but can re-define some of its meaning (Reese 2007: 153).

Even more importantly, the study of frame disputes (cp. Benford 1993) highlights how different securitizations of a threat can interact. Frame disputes refer to situations where negotiation and conflict processes emerge within a specific paradigm (cp. for instance Benford [1993] on frame disputes within the nuclear disarmament movement). These findings can be applied to the study of securitization processes, where a certain threat, for instance environmental degradation, can be framed differently in a security image. More precisely, the finding that environmental change poses a threat – the environmental change security image – can be described so differently that dispute erupts over the question which particular version of reality best captures the phenomenon. In their study on the framing of political arguments, Sniderman and Theriault (2004) found that people are constantly exposed to competing frames of a particular political argument.

In summary, framing research has overcome its static bias and thus provides insight into how securitization can be conceptualized as a more dynamic process. Frame transformation can be applied to instances where the predominant meaning of security changes over time, as observed for instance by Trombetta (2008, 2011) who notes that the securitization of non-traditional security issues such as the environment potentially challenges and transforms the meaning of security towards an emphasis on prevention whereas the concept of frame disputes highlights the parallel existence of different securitizing frames with respect to a particular issue, for instance climate change.

OUTLOOK: A FRAMING PERSPECTIVE ON THE OUTCOME AND NORMATIVE IMPLICATIONS OF SECURITIZATION

A framing perspective can also shed light on the normative implications of securitization, whose discussion is closely related to debates about the outcome of securitization in terms of politicization and securitization. Future research along this avenue can provide new insight into the question of whether successful securitization necessarily results in (normatively problematic) emergency policies or can also lead to politicization. Due to the time constraints and the limited possibility to conduct a large-scale empirical analysis in this master thesis, I can only provide preliminary thoughts on how research could further proceed along this line.

The outcome of securitization and its relation to politicization has also been extensively debated. Ralf Emmers (2007) addresses the difficulty to differentiate between instances of securitization and those of severe politicization. Securitization in the environmental sector has sometimes led to political solutions (Floyd 2007, 2010, cp. also McInnes and Rushton [2010] on a similar observation concerning HIV/AIDS). Thus, it seems “by no means clear what becomes of securitizing moves after their initial discursive assertion or contestation, even if they are intersubjectively accepted” (Neal 2006: 338), with emergency rule, exceptional politics, politicization or institution-building being potential outcomes. One problem that seems particularly promising to address in that context is the question of whether securitizing moves have to be “negative” and normatively problematic in the sense of constraining the normal political debate (see Hajer 1995: 11 on this issue in environmental discourses), or whether they can lead more positively to the politicization of an issue such as climate change, and therefore in fact open up the political debate.

As outlined above, several studies suggest that certain securitizing moves have led to politicization in the sense of placing the environment firmly on the political agenda rather than to securitization in the sense of imposing uncontested emergency measures (Trombetta 2011: 140). They reinforce the need for a more careful conceptualization of the relationship between politicization and securitization, for which a framing perspective provides a point of departure. On the basis of the existing literature, one could hypothesize that the effect of securitizing moves may depend on their specific framing, i.e. that securitizing moves sticking closely to the structure as defined by Wæver, if successful, are

more likely to lead to securitization than to politicization and vice versa. The findings of Elbe (2005: 416) that strengthening a human security framework instead of using a national security framework could minimize outcomes of securitizing HIV/AIDS in terms of extraordinary measures and a military focus point into that direction. While his work (Elbe 2005, 2006) provides initial insight in that direction, only a systematic study on securitizing moves following different discursive frames in a particular sector can analyze whether and how the exact framing influences the outcome in terms of securitization or politicization.

By conceptualizing securitization as framing one cannot escape “the normative dilemma of speaking and writing security” (Huysmans 1999). Ultimately, the purpose can only be to create an “ethical sensibility” about the consequences of speaking security (Elbe 2006: 138). Nevertheless, the identification of different frames securitizing climate change may lead to a more nuanced picture of the normative implications of securitizing climate change, whose problematic nature might be more pronounced in certain frames than others. In line with this argumentation, the mode and nature of the state response to securitization – which varies according to the frame, as I have argued above – has been identified as the key question by Elbe (2006: 132) in his analysis of the implications of securitizing HIV/AIDS, which does not invariably result in normatively problematic outcomes according to his findings (Elbe 2005: 413).

3. BACKGROUND: THE CLIMATE CHANGE SECURITY NEXUS

The three frames securitizing climate change that I will introduce in the next section *inter alia* differ in terms of the relation between environmental degradation and security (or conflict) that they postulate. Thus, I will sketch the state of the art of the research on environmental degradation, climate change and conflict in this section. Moreover, the illustration of different securitizing moves in the political sphere will provide a background on the climate change conflict nexus against which one can better analyze different reports and studies securitizing climate change.

STATE OF THE ART: ENVIRONMENTAL DEGRADATION, CLIMATE CHANGE AND CONFLICT

Climate change will degrade the natural resource basis and thus increase environmental stress (IPCC 2007). Some changes such as extreme weather events directly affect human lives whereas others are taken to gradually undermine the well being of individuals and the stability of societies in the form of disputes over water, food scarcities and environmental migration. Global warming affects regions differently. Northern Africa, the Mediterranean, Southern Asia, Central and Latin America and the Middle East are identified as potential hot spots of climate-induced conflict where fragile governance structures, weak socio-economic development and environmental degradation could go hand in hand (Scheffran and Battaglini 2011).

The study of the environment conflict nexus was initially shaped by Thomas Homer-Dixon's (1994, 1999) study on the interdependence between environmental change and conflict. He found substantial evidence that environmental scarcity can cause violent conflicts. Similarly, the UN High Level Panel on Threats, Challenges and Change suggested that environmental degradation and violent conflict reinforce each other (HLP 2004). An expert advisory group by UNEP on environment, conflict and peacebuilding concluded that the possibility for

conflicts over natural resources to exacerbate in the next decades is rather high (UNEP 2009: 5). Despite its significance, Homer-Dixon's findings are subject to a number of criticisms. The case studies allegedly suffer from a selection bias due to the choice of cases with pre-existing violence (Matthew 2002: 209, Gleditsch 1998: 391/2), lack an adequate control group and avoid cases of cooperative solutions (Reuveny 2007: 668). In contrast to Homer-Dixon, Philippe Le Billion (2001) argues that the abundance of natural resources rather than their scarcity is positively related to the onset of violent conflict.

In relation to climate change, Jürgen Scheffran and Antonella Battaglini (2011: 37) emphasize that the causal chain from global warming to violent conflicts is not fully understood thus far and Barnett (2000) adds that the argument of an environmental degradation-conflict is rather theoretically driven than empirically observable. A number of scholars see no clear evidence for the environment conflict-hypothesis (Barnett and Adger 2007, Nordås and Gleditsch 2007, Raleigh and Urdal 2007). They argue that environmental change may be one factor among others (see also Podesta and Ogden 2007-2008: 129) and rather intervenes in already fragile societies as a threat multiplier (Elliot 1996: 159). In contrast to these finding, Berdal and Malone (2000) even argue that resource abundance rather than resource scarcity is positively related to the onset of violent conflict. The Conflict Barometer developed by the Heidelberg Institute for International Conflict Research found that in 2008, resource scarcity played an important role in 71 out of 345 conflicts (HIIK 2008). However, these cases are often characterized by a complex situation, where environmental factors are combined with territorial, secessionist and ethnic grievances. Moreover, resource degradation can also provide an opportunity for cooperative behavior (Hauge and Ellingsen 2001, see Link et al. 2010 for the case of the Nile water management). On a global scale, climate change is also discussed as a factor possibly uniting the international community because of the need to adopt a coordinated global climate policy (Scheffran 2009: 29).

In addition to these studies analyzing the link between environmental degradation, climate change and conflict based on past data, some scholars also attempt to forecast how global warming will affect the likelihood of (armed) conflict. Based on the finding that changes in rainfall patterns were historically correlated with a higher rate of conflict onset, Cullen S. Hendrix and Sarah M. Glaser (2007) predict that climate change (which will lead to rainfall

variability according to the research by climatologists) will make conflict more likely. Others have predicted a 54 percent increase in armed conflict in Africa by 2030 on the basis of a correlation found between historic temperature increase and conflict incidence between 1981 and 2002 (Burke et al. 2009): However, the causal chain between temperature increase, a decline in agricultural productivity and a resulting economic decline, which they link to a increase in conflicts because wealth was identified as one of the major contributors to conflict, remains rather fuzzy (Busby et al. 2010).

These studies indicate that the connection between environmental degradation, climate change and conflict is not a given, but subject to social and political processes. Among these, securitizing practices take on a central role.

THE POLITICAL DEBATE

The link between climate change and conflict is not only addressed in the academic literature, but also reflected in the political debate. United Nations Secretary-General Ban-Ki Moon underlined that global warming is likely to “become a major driver for war and conflict” (UN News Centre 2007). On 17 April 2007 the UN Security Council held its first ever session on climate change. The United Kingdom had initiated the debate to discuss the security implications of global warming, suggesting in a background paper that climate change has the potential to threaten international peace and security by exacerbating border disputes, resource shortages, migration and humanitarian crisis (UN Security Council 2007a). During the debate, Margaret Beckett, then British Foreign Secretary suggested that global warming influences the states’ collective security (UN Security Council 2007b). This characterization of climate change at the international level has not remained unchallenged. Not global warming itself, but the “economic model which drives growth, and the profligate consumption in rich nations that goes with it” is identified as the true threat by the United National Development Program in the 2007/2008 report *Fighting Climate Change* (UNDP 2007/2008: 15).

There were also attempts to securitize climate change on the regional and national level. Two US Government reports point into the same direction, suggesting “while climate

change alone does not cause conflict, it may act as an accelerant of instability or conflict, placing a burden to respond on civilian institutions and militaries around the world” (US Government 2010a, cp. also US Government 2010b). The European Commission describes climate change more cautiously as a threat multiplier (European Commission 2008).

Think tanks and NGOs are important actors in this debate. A study by International Alert published in 2007 (Smith and Vivekananda 2007) compiles a list of 46 countries that face a high risk of violent conflict as a consequence of climate change. However, the study does not provide convincing evidence for the figures cited – a weakness it shares with a study by the Global Humanitarian Forum (2009) claiming that climate change is already killing 300,000 people annually. Moreover, advisory bodies installed by governments also shaped the debate on climate change. An important study was *An Abrupt Climate Change Scenario and Its Implications for United States National Security* (Schwartz and Randall 2003), which assesses the implications of a climate-induced collapse of the Gulf Stream. The Stern Review (2006), which focuses on the economic consequences of climate change but also considers its security implications in that context, and the report on *Climate Change as a Security Risk* by the German Advisory Council on Global Change (Wissenschaftlicher Beirat Globale Umweltfragen, WBGU) have been highly influential reports.

4. COMPETING SECURITIZATIONS OF CLIMATE CHANGE

The observation that there exist different frames securitizing an issue has already been made in relation to other issues. For example, Elbe (2005: 404) differentiates between different discourses in relation to HIV/AIDS that emphasize the human, national or international security implications. The following categorization of different frames securitizing climate change builds upon and combines several approaches discussed in the literature. Detraz and Betsill (2009) mention the existence of an environmental security and an environmental conflict discourse and analyze whether a discursive shift has occurred from the former to the latter in the 2007 Security Council debate. Edward Page (2010: 3) distinguishes between a shallow demilitarized view of security (environmental degradation as threat to state security) and a deeply demilitarized notion closely related to concept of human security. Trombetta (2011, cp. also Smith 2010) refers to two tendencies in the environmental security debate, a national security discourse and a framing of environmental change as a threat to global order and stability. In a similar manner, Michael Brzoska (2009) differentiates between two major understandings of security which find their expression in the respective framing of the climate change security nexus: one frame is limited to a conception of hard security stressing the importance of wars, weapons and the army whereas the other subscribes to a human security conception and thus emphasizes the security implication of climate change related developments for human beings, such as hunger, disease and migration.

From this literature, I will deduce two ideal typical framings of the relationship between environment and security, which I label environmental conflict and environmental security respectively. They represent different ways of conceptualizing the link between environmental change and security and focus on different referent objects, namely the state respectively individual human beings. To these, I add ecological security as a third potential frame, which sees human beings as part of a greater whole and on this basis focuses on the environment as such as the main referent object (cp. Cudworth and Hobden 2010, Dalby 1992, Bertell 2001). I call this frame ecological security. Nicole Detraz (2009) has suggested a similar categorization, albeit in order to explore the gender dimension related to the different ways of linking environmental change and its security implications.

METHODOLOGY

The typology is based on different suggestions by a number of authors on how to categorize the environmental change security nexus. This approach is in line with Dennis Chong and James A. Druckmann (2007) and well as Claes H. de Vreese (2005) who maintain that an initial set of frames should be identified, defined and operationalized on the basis of the academic literature prior to investigation because otherwise any text could be considered as a candidate for embodying a new frame, which is considered as a too broad view.

The exemplary illustration will be mostly drawn from a number of policy think tank documents published in the US. I chose to mainly review US studies and reports because the entire spectrum of frames was seemingly observable in the US context, as a cursory review of the documents revealed. However, I will occasionally add evidence from other countries whenever a particular argumentative structure was extraordinarily clear in documents written by think tankers, policy makers or NGO activists of other nationalities and/or when a particular argument could not be observed at all in the US context. Altogether, I analyzed six documents published in the US (see list and table in the appendix) and contrasted it with one example from the German debate, the report *Climate Change as a Security Risk* written by the German Advisory Council on Global Change (WBGU 2007), that is considered as one of the most influential examples of a human security approach to climate change as a security risk (Brzoska 2009).

Contrary to the usual emphasis on securitizing moves performed by political elites (Wæver 1995: 57, Buzan et al. 1998: 40-42), this paper will focus on securitizing moves by non-state actors (mainly think tanks) and advisory boards being close to the government, but not government actors themselves. Buzan et al. (1998: 31-32) acknowledge that the dominance of state elites in performing securitizing moves is neither static nor absolute. In the case of the ozone regime, it was shown that the main securitizing actors were NGOs and environmental groups that tried to mobilize states to act collectively (Trombetta 2011). In the case of climate change, non-state actors were on the forefront of securitizing the issue, not least as an attempt to mobilize resources and gain attention (Detraz and Betsill 2009, Dalby 1992, Nordås and Gleditsch 2009).

ENVIRONMENTAL CONFLICT FRAME

The environmental conflict frame can be traced back to the work of Richard Ullmann (1983) who argues that non-traditional security issues such as environmental degradation can be more threatening to *security interests of states* than military conflict. Such an understanding of environmental degradation as a security threat to states was compatible with the mainstream traditional thinking on security at that time (Page 2010: 9). A discussion of wars as a result of conflict over water in the Middle East or the Gulf War over oil facilitated “linking environment themes to conventional military understandings of security” (Dalby 1992: 507). Likewise, the discourse about the security implication of climate change was also framed in terms of environmentally induced conflicts in order to make it more familiar to national security experts (Trombetta 2008).

One of the most influential examples of the environmental conflict frame is the scarcity storyline first developed by Homer-Dixon (1991, 1994). Central to this argumentation is a causal explanation showing how environmental scarcity has significant influence on the outbreak and intensity of violent conflicts between (and within) states. More precisely, environmental change that impacts access to water, food or other natural resources was found to trigger socio-political effects (most importantly competition over scarce resources), which in turn cause or exacerbate violent conflicts between the affected communities (Homer Dixon 1999: 6-8). Homer Dixon (1999: 166-168) concluded that the resulting violence can affect national security interests if it is sufficiently widespread and intense.

In addition to studies that attempt to demonstrate a direct causal link between environmental change and violent conflict and the related debates about resource wars (Ross 2004), a number of scholars identified intervening factors that increase the possibility of environmentally induced conflict, including migration and population growth (Barnett 2001). Growing consensus emerged that environmental degradation is rather indirectly linked to violent conflict by “interacting with other social, economic, political and cultural drivers” (Elliot 1996: 159). More recently, the issue of energy security, which is traditionally associated with national security and its logic (Trombetta 2008), is also discussed in conjunction with the environmental conflict hypothesis (Smith 2010: 242). Another dimension was added to the climate change conflict nexus with the discussion of potential

spill-over effects, which focused on the danger that environmentally-induced conflicts have the potential to destabilize entire regions and ultimately also affect national security interests of countries not directly involved as a result of its destabilizing potential (Trombetta 2008).

The fact that environmental threats to security often arise unintentionally has been put forward as an argument against the concept of environmental security at the early stages of the debate. Scholars stressed that the field of security is not concerned with unintentional threats but is rather characterized by the constitution around relationships of will that find its expression in struggles between strategic actors endowed with intentionality (Wæver 1995: 63). Contrary to the alleged lack of intentionality of environmental threats to security, the environmental conflict paradigm with its focus on the state is characterized by an important intentional aspect because the sorts of threats that undermine state security, such as declaring war over resources, are deliberate acts (Page 2010: 10, Detraz and Betsill 2009: 5).

The environmental conflict theme is dominated by a narrow conception of the relationship between security and the environment. It displays a traditionalist notion of security insofar as the major emphasis lies on the likelihood that particular communities, above all states, engage in violent conflict as a result of environmental degradation (Detraz and Betsill 2009: 305). Page (2010: 8) characterizes this thinking as a shallow demilitarized view of security because non-military threats are included in the discussion of security only to the extent that they undermine the security of states. Some scholars examining the environmental conflict hypothesis also take into account the possibility of conflicts over resources between groups within states (cp. Smith and Vivekanada 2007). Nevertheless, the central story line focuses on the security of states rather than the implications for individuals or the human populations, as exemplified by Homer-Dixon's analysis of how internal conflicts over resources ultimately put *the state* at risk. In a similar vein, Kaplan (1994: 50, emphasis added) discussed massive population displacement and internal violent conflict resulting from environmental degradation as "the *national* security issue of the early twenty-first century". This focus on national security implications led to a focus on violent inter-state and vice versa, thereby addressing what could be discussed as a threat to the people and the environment as a threat to order and stability on the national level. In doing so, other

dimensions, such as the impact of climate change on the health of individuals, have disappeared from that kind of security considerations (Trombetta 2008).

This understanding of the environmental change conflict nexus is linked to specific policy recommendations, foremost characterized by the call to strengthen traditional national security instruments like the military (Brzoska 2009: 144). Accordingly, such suggestions see states as the most relevant site of solution (Cudworth and Hobden 2010: 4). Moreover, policy recommendations within the environmental conflict paradigm underline the importance of adaptation if states want to address the risk of environmentally induced conflict effectively. For instance, Homer-Dixon (1999: 26) proposed that “as a result [of resource scarcities], resource substitution and conservation tasks will be more urgent, complex, and unpredictable, boosting the need for many kinds of ingenuity. In other words, these societies will have to be smarter – technically and socially – in order to maintain or increase their well-being in the face of rising scarcities”. The logic behind this is the following: those countries that can best adapt to the adverse effects of climate change will most likely avoid large-scale conflict that destabilizes their country. In accordance with the story line of resource wars, these adaptive measures must address the interdependence of energy and security issues and thus aim at reducing energy dependency and increasing energy diversification (cp. CNA 2007: 41).

The focus on adaptation does not only narrow the range of potential policy responses (Detraz and Betsill 2009: 306), but also adheres to a limited notion of adaptation, privileging those parts of the population that will most likely experience conflict over resources (cp. Ross 2003). Nordås and Gleditsch (2007: 635) observe in relation to the policy responses addressing the security implications of climate change that they “lead to greater emphasis on a national security response to whatever degree of climate change is seen as unavoidable. This would not be helpful to the primary victims of climate change.” In that context, it is important to note that the term adaptation used to describe policy recommendations within the environmental conflict frame is not identical to its meaning in the UNFCCC process and the IPCC, albeit both share certain similarities. The IPCC (2007: 869) defines adaptation as “adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial

opportunities". The reference to the adjustment in natural and human system shows that adaptation is not merely conceptualized as a tool to prepare states for the adverse affects of climate change, but also aims at increasing the resilience of all human beings and the ecosystem³. Hence, both notions differ in terms of those that are supposed to benefit from adaptation: while the UNFCCC's understanding of adaptation aims at enhancing the adaptive abilities of people, communities and the ecosystem, adaptation within the environmental conflict frame refers to the adaptation of states in order to minimize destabilizing effects of climate change on the national security.

In summary, the environmental conflict frame is characterized by a focus on particular communities, especially states, as the main referent object to be secured. Violent conflicts caused or exacerbated by the degradation of natural resources and potentially resulting mass migration are portrayed as the major security implications of climate change. In that context, the storyline of environment and natural resources (like water, arable land, food and energy resources) as limited goods over which competition arises plays a central role. As illustrated above, recommendations within the environmental conflict frame are mostly limited to short term policies including adaptation of states and reactive (military) measures.

Reports and studies

A nearly ideal-typical example for the environmental conflict frame is the report *National Security and the Threat of Climate Change* published by CNA (2007), a non-profit research institution that operates the Center for Naval Analysis and the Institute for Public Research. The Report was written by a study team of scientists together with a military advisory board that consisted of retired high-level generals and admirals including a former Chief of Staffs and a former Commander-in-Chief of US Central Command. The involvement of (former) high-level military personnel contributed to the great resonance of the report within the US public and government discourse.

³ See also the definition of adaptation on the website of the UNFCCC secretariat: <http://unfccc.int/adaptation/items/4159.php> [17 October 2011].

The Age of Consequences (Campbell et al. 2007) is another influential study that considers the potential future foreign policy and national security implications of climate change. It was written under the leadership of the Center for Strategic and International Studies (CSIS) and the Center for New American Security (CNAS). The group, which consisted of nationally recognized experts in the fields of climate science, foreign policy, political science, oceanography, history, and national security met to develop three scientifically plausible future scenarios based on expected, severe and catastrophic climate change, taking into account available evidence on global warming and currently existing climate change models (Campbell et al. 2007: 3).

A third report that I will discuss in this section was published in 2003: *An Abrupt Climate Change Scenario and Its Implications for United States National Security* by Peter Schwartz and Doug Randall. It was written as one of the first reports on the climate change security nexus that gained wide spread attention both in the public and political discourse, despite its speculative nature and related methodological weaknesses (Busby et al. 2010: 23). The report's purpose was "to imagine the unthinkable" (Schwartz and Randall 2003: 1). The authors developed a scenario in which the ocean's conveyor stops due to climate change – a development that they consider "extreme but not implausible" (Schwartz and Randall 2003: 7) – and examined the consequences for US national security. In doing so, Schwartz and Randall interviewed leading climate scientists – who were skeptical about the extremity of the developed scenario in terms of its scope and magnitude – and conducted additional research (Schwartz and Randall 2003: 1). The report's methodological limitations became apparent looking at its problematic predictions, for instance the authors' assessment that breaking levees in the Netherlands would make The Hague uninhabitable by 2007 and that the thermohaline circulation would begin to collapse by 2010 (Schwartz and Randall 2003: 9, 12). Nevertheless, the scenario developed by Schwartz and Randall contributed to the increasing attention for the climate change security nexus and also set out some causal connections made between global warming and security concerns that were later taken up by other publications, albeit in a more cautious manner.

Despite the introductory remark that "global climate change presents a new and very different type of security challenge" (CNA 2007: 1, cp. also Schwartz and Randall 2003: 14),

climate change is analyzed in terms of its impact on the most conventional referent object in security studies, namely the *national security*. The study *The Age of Consequences* also focuses on the state as the referent object to be secured from threats such as climate change induced inter-state conflict (Campbell et al. 2007). Nevertheless, the authors of the CSIS/CNAS study (Campbell 2007: 9) admit that “a narrow interpretation of the term “national security” may be woefully inadequate to convey the ways in which state authorities might break down as a result of climate change”. Especially in a worst-case climate scenario that can trigger deep instability and insecurity it seems far from clear that such developments will lead to traditional national security response” (Campbell et al. 2007: 9). According to the authors (Campbell et al. 2007: 9) it seems rather likely that such a development overwhelms the traditional instruments of national security such as the military. While being skeptical if massive climate change will trigger traditional national security responses, Campbell et al. (2007: 7) closely stick to the notion of environment conflict in their diagnosis.

The CNA report discusses the “influence of climate change on *geo-strategic balances* and world events that could likely involve US military forces or otherwise affect US strategic interests anywhere in the world” (CNA 2007: 9, emphasis added), pointing towards an understanding of the climate change conflict nexus closely related to traditionalist notions of security. In a similar vein, the study published by CSIS/CNAS assumes a geopolitical reordering with far reaching national security implications as nations adapt to shifts in the prevalence of resources and diseases caused by climate change (Campbell et al. 2007: 6). This focus on traditionalist understandings of security is also illustrated by the attempt of members of the military CNA advisory board to compare the threat of climate change to the danger of a missile attack during the Cold War (CNA 2007: 10) and the comparison that Homer-Dixon – cited in the study by Campbell et al. (2007: 20-21) – draws between the danger of climate change and the US-Soviet arms race during the Cold War.

Thus, the state, in this case the United States, is depicted as the referent object to be secured from the impacts of climate change, as illustrated by the recurring reference to national security and national stability as the major goal throughout the reports (cp. CNA 2007, Schwartz and Randall [2003: 2] who discuss the climate vulnerability in relation to

countries rather than individuals or humanity as the referent object to be secured). Adverse affects on the ecosystem or human livestock that climate change causes around the world are included in the analysis only to the extent that they represent a security risk for the state, in this case the US or strategically important partners (CNA 2007: 6). The CNA report describes how global warming affects the ecosystem of the Arctic, which is, however, not seen as security relevant as such but only because the melting of the ice shield could trigger inter-state conflict over then accessible natural gas and navigable routes (CNA 2007: 38, cp. also Campbell et al. 2007: 8).

In a similar manner, health catastrophes resulting from a spread of vector-borne diseases that flourish under warmer circumstances are not addressed as an impediment to human security, but rather as a regional security challenge affecting state stability when involving larger numbers of deaths (CNA 2007: 15). The fact that climate change will exacerbate marginal living standards in Africa, Asia, and the Middle East is linked to the issue of US national security because it causes political instability and state failure that foster conditions for internal conflicts, extremism and terrorism as well as movements towards authoritarian and radical ideologies (CNA 2007: 6). The CNA report authors fear that the US could be drawn into conflicts or conflict prevention missions to avoid the exploitation of such unstable situations by extremists, as such missions would even further stretch the already overburdened military capacity at the expense of national defense capacities (CNA 2007: 45). This story line that has not been discussed in the literature on the environmental conflict frame but can be found in some influential US reports (cp. also Campbell et al. [2007: 7] who find that particularly the scenario based on extreme climate change reveals strong intersections between two of the greatest current security threats, namely climate change and terrorism).

In a second step, the CNA report assesses *the ways* in which these conditions precisely affect US national security interests, underlining the importance of the causal dimension in the diagnosis of the security threat that I have previously outlined. Global warming is described as threatening to the US national security in two ways: Firstly, its consequences can affect the organization and planning of military services and secondly, global warming acts as a threat multiplier in some of the most fragile regions, leading to both internal

struggle and inter-state conflicts over energy resources, water and land use (CNA 2007: 1). In other words, climate change threatens human livelihoods and contributes to social and economic inequalities and environmental problems, which exacerbate proximate causes of conflict such as relative deprivation, migration, ethnic tensions, poor governance and the decline of economic productivity (Campbell et al. 2007: 15). Civil war and inter-state conflict, also in distant regions, represent a significant national security threat for the US due to the risk of conflict spill-over (CNA 2007: 1). For instance, Darfur is cited as an example that shows how the lack of essential resources resulting in a conflict over grazing land does not only threaten individuals or communities but also a nation's stability and an entire region. In addition to causing or exacerbating skirmishes, battles and wars as a result of marginal living conditions and resource constraints due to climate change, global warming is also seen as directly influencing US national security interests when extreme weather events disrupt the access to strategic minerals (Schwartz and Randall 2003: 14).

In relation to the debate about 'climate wars', the storyline that the US (and Europe) will be forced to accept large numbers of refugees as a result of water and food shortage, rising sea levels, extreme weather events as well as resource scarcity induced conflict is particularly pronounced. Mass emigration will particularly occur in less prosperous regions that lack resources to adapt, with Africa and Latin America being of major concern to Europe and the US (CNA 2007: 7, Schwartz and Randall 2003: 5). This has been characterized as a "primary strategic concern" (CNA 2007: 28) and "the most worrisome problem" (Campbell et al. 2007: 8). According to Campbell et al. (2007: 8), even within a conservative climate change scenario this migration both within nations and across national borders will involve hundreds of million of people, which will potentially undermine the living standard in their receiving countries or lead to conflict with the 'native' population that can spike regional tension (Campbell et al. 2007: 7-8).

Schwartz and Randall (2003: 2, 18-19) do not only discuss how the impacts of climate change affect national security concerns, but also two possible reactions how nations deal with such developments, namely defensive and offensive. If the resources for self-sufficiency are available, countries will most likely focus on self-defense and build a "defensive fortress" by strengthening national borders, which will most likely occur in the

US and Europa (Schwartz and Randall 2003: 12). This can trigger aggressive reactions by other countries, for instance skirmishes at the borders of India over refugee flows and arable land (Schwartz and Randall 2003: 18, Campbell et al. 2007: 3). Countries with less favorable conditions for adaptation will most probably resort to offensive aggressions and initiate war for access to food, clean water and energy in order to find resources for survival, with China that will peer at Russian energy resources being a case in point (Schwartz and Randall 2003: 12).

Finally, all three reports propose actions that the US and other states should take in response to the national security implications of climate change. In order to address the impact of climate change on the preparation and conduct of military operations and services, the military advisory board suggests that national security consequences of global warming must be fully integrated into the national security and defense strategy (CNA 2007: 7). In other words, national defense, for instance the closing of borders to prevent climate migrants from entering, is recommended as a response to the security challenges of climate change. Moreover, it is recommended that the Department of Defense (DoD) enhances operational capacities by adopting innovative technologies that lead to better US combat power through improved energy efficiency so that forces are less vulnerable – “saving energy problems solves a real security problem” in the words of a former general (CNA 2007: 26) – and that the DoD conducts an assessment of the consequences of rising sea levels and extreme weather events on US military installations world wide. The *Age of Consequences* study provides relatively little precise policy recommendations. However, the kind of responses that the authors have in mind seems to be rather focused on military measures, because they limit their scenario building exercise to a reasonable time frame of 30-40 years paralleling the amount of time that it usually takes to design new weapon systems and militarily react to geopolitical trends (Campbell et al. 2007: 3).

While the CNA report discusses the importance of stabilizing green house gas emissions at a level that avoids significant disruption and thus acknowledges the importance of

mitigation, a major focus of the policy recommendations lies on adaptation⁴ measures (CNA 2007). Likewise, Schwartz and Randall (2003: 21) describe mitigation efforts as “a worthwhile endeavor” but stress the necessity to prepare for inevitable consequences of global warming. This preference for (short-term) adaptation, which is characteristic for the environmental conflict frame, is reflected in the extensive discussion of necessary adaptive responses while mitigation should be limited to non-regret-strategies, for instance investment in renewable energy, that would also pay off in terms of increased energy security if climate change has less dramatic effects than currently predicted (Schwartz and Randall 2003: 22). The CNA (2007: 7, emphasis added) report authors recommend that “the US should commit to global partnerships that help less developed *nations* to build capacity and resilience to better manage climate change impacts”, which illustrates the emphasis on the adaptive capabilities of states rather than people within the environmental conflict frame. Investment into the adaptive capabilities of other nations is considered as crucial for US security because it helps governments to better cope with societal needs and thus prevents extremists or terrorists from filling that gap. It thus ensures the functioning of states that are important sources of US oil and gas imports and maintains stability within societies in order to avoid full-scale military conflict (CNA 2007: 7, 13, 47).

In addition to the previously discussed policy recommendations, Schwartz and Randall (2003: 3, 22) also propose the use of geo-engineering to control the climate, for instance adding neutralizing agents to the atmosphere. While these suggestions have not gained much support given the dangers involved (Campbell et al. 2007: 18), they reflect the emphasis on reactive measures instead of prevention as well as the belief that a technological fix is possible – a position that is heavily rejected by authors arguing within an ecological security frame (cp. Cudworth and Hobden 2009) as I will illustrate below.

In short, a number of influential studies closely stick to an environmental conflict frame in the US context. The focus on the state as the referent object to be secured, the discussion

⁴ Mitigation, which is defined as the reduction of green house gases in order to prevent or minimize climate change in the UNFCCC, is used by Randall and Schwartz (2003: 19) also to refer to the mitigation of sources of violent conflict rather than taking measures to prevent global warming itself.

how climate change fuels or triggers inter- or intra-state wars, the importance of resources in that respect and the attention paid to energy security are nearly ideal-type story lines. In addition to these diagnoses, the studies also discuss two ways in which climate change threatens state security that have not been addressed as a part of the environmental conflict frame in the literature thus far. Firstly, they emphasize the impact of climate change on the national defense capabilities and military bases abroad (CNA 2007). Secondly, the link drawn between marginal living conditions that worsen as a result of climate change on the one hand and resulting state failure potentially opening spaces for terrorist and extremist groupings (Schwartz and Randall 2003, Busby 2007) has also not that prominently been discussed in the literature on environmental conflict. The focus on national security implications of climate change can be at least partially attributed to the involvement of national security experts (Campbell et al. 2007) respectively a military advisory board (CNA 2007) or the fact that one study was commissioned by the Defense Department's Office of Net Assessment (Schwartz and Randall 2003). On the other hand, the 'use' of an environmental conflict frame (and the involvement of military staff members) might have been decided *a priori* in order to make the results more accessible for the influential security community as Trombetta (2008) suggested in her discussion of the environmental conflict frame.

ENVIRONMENTAL SECURITY FRAME

The notion of environmental security was developed in the late 1970s and early 1980s. The Brandt Report written by an Independent Commission chaired by the former German chancellor Willy Brandt noted that "few threats to peace and survival of the human community are greater than those posed by the prospects of cumulative and irreversible degradation of the biosphere on which human life depends" (Independent Commission on International Development Issues 1980: 119). Seven years later, the expression environmental security appeared for one of the first times in the Brundtland Report *Our Common Future* (WCED 1987) published by the independent expert Commission on Environment and Development.

The environmental security frame stresses the adverse affects of environmental degradation for all human beings and human welfare instead of limiting the analysis to intra- or inter-state wars (Detraz and Betsill 2009: 306, Smith 2010: 233). Hence, such thinking is described as a deeply demilitarized view of security in contrast to traditional understandings of security (Page 2010: 8). With its focus on human vulnerability (cp. Vogel and O'Brien 2004, Adger 2006, Eakin and Luers 2006) and the implications of environmental change for individual human beings, the discourse moves away from the state-centric environmental conflict analysis and picks up the concept of human security. According to Page (2010: 11), both conceptions are so closely related that she even describes the discourse combining both dimensions as "human environmental security". The Commission on Human Security (2003) defines human security as the protection of "the vital core of all human lives in ways that enhance human freedoms and human fulfillment". This idea stresses the importance of the individual as the main referent object and thus challenges state-centric notions of security, as illustrated by Jaap de Wilde's (2008) assessment that the impacts of climate change escape the analysis in terms of the nation state. The Human Development Report recognizes environmental security as one of the seven elements comprising human security (UNDP 1994). Conversely, at least three of the dimensions of human security identified in the Human Development Report, namely health, food and economic security, can be negatively affected by environmental degradation.

The environmental security frame is related to the environmental conflict frame in different ways. The environmental conflict theme is a subcategory of the environmental security frame insofar as environmentally induced violent conflicts (being the major storyline of the environmental conflict frame) affect not only the stability of states but also the well being of individuals. On the other hand, both frames are fundamentally distinct for a number of reasons. Firstly, conflict respectively war is only one way how environmental degradation has an impact on the security of human beings. Secondly, the environmental security discourse is concerned with a broader range of potentially affected actors (including individuals, sub-state and supra-state actors) than the environmental conflict frame. Thirdly and most importantly, states that are the primary referent object to be secured according to the environmental conflict theme are portrayed as also acting in ways that endanger environmental human security (Dalby 2000: 2). Seen that way, the claim that environmental degradation is security relevant because it leads to violent conflicts is oversimplistic and

environmental change should be rather seen as affecting human security (or comprehensive security as Dalby [1992: 598] calls it) in multiple ways. Moreover, the environmental security frame has challenged the focus on military threats and reactive measures described in relation to the environmental conflict frame above, and “shifted the attention to different kinds of vulnerabilities” (Trombetta 2008: 593).

The environmental security frame is broader than the environmental conflict frame and has been criticized on that basis for being so all-encompassing that it becomes analytically and politically useless – a criticism that was also raised in relation to the concept of human security (Paris 2001). Advocates of the environmental conflict frame have responded that “the environmental security discourse is not a catchall for every environmental issues, but it rather looks specifically at those environment issues that present a security risk for human populations” (Detraz and Betsill 2009: 307).

One can find two diverging accounts of the environmental security frame that are rarely distinguished (Page 2010: 14): firstly environmental security where the environment itself is perceived as the entity to be secured from human activity and secondly environmental security where human beings are to be secured from environmental change. This illustrates a certain degree of looseness of the concept of environmental security that can potentially affect its analytical value (de Wilde 2008: 598-599). In order to overcome this confusion, I only consider the latter account within the environmental security frame whereas the former will be addressed as an embodiment of the ecological security frame. In this, I follow Trombetta (2008: 595) and de Wilde (2008: 600) who both argue that environmental security describes how *human beings* are affected by changes in the climate system.

In terms of policy responses, those arguing within the environmental security frame suggest to address both human behaviors (Barnett 2001) and natural processes, both of which contribute to environmental human insecurity. The fact that natural processes can undermine environmental security from that perspective indicates that “there is a different degree of intentionality in the environmental security discourse when compared with the environmental conflict discourse” (Detraz and Betsill 2009: 5). According to the environmental conflict frame, humans act with a high degree of intentionality when they

come into violent conflict with each other whereas from an environmental security perspective, environmental degradation that is unintentionally caused by human agency can also threaten environmental security.

In contrast to the focus of short-term adaptation within the environmental security discourse, policy response strategies consistent with an environmental conflict frame emphasize the importance of precautionary measures (Trombetta 2008: 594) and long-term strategies to combat environmental change (Detraz and Betsill 2009: 308). In the case of climate change, the reduction of green house gas emissions is central and the failure to do so is occasionally considered as immediately affecting human security (Brzoska 2009: 142). In addition, measures must prioritize human over state security and promote not only state activities but policy responses by other actors, too. The related storyline reads as follows: states have the responsibility to protect not only their population but all human beings from environmental degradation, but in some cases this will require additional engagement by other actors. Policymaking must deal with all human beings vulnerable to environmental change, raging from the local to the global level if the measures should adequately respond to the security implications of climate change framed according to the logic of environmental (human) security. Despite the importance of mitigation as a crucial theme, policy recommendations developed against the backdrop of an environmental security frame include both measures to minimize or prevent environmental change resulting from human activities and attempts to strengthen the adaptive capabilities of local populations to environmental degradation (Detraz and Betsill 2009: 308, Duffield and Waddel 2006: 10). The measures recommended in relation to adaptation can be further subdivided into improving social resilience of all human beings and strengthening institutions of conflict resolution (Brzoska 2009: 144). While both mitigation and adaptation are considered crucial, those arguing within an environmental conflict frame insist that the best results depend upon early intervention and prevention (cp. Trombetta 2008).

In a nutshell, the environmental security frame addresses the everyday security implications of environmental degradation for all human beings and thus prioritizes the individuals as the referent object to be secured. The key storylines deal with human vulnerability to environmental change and stress the importance of the environment as a common good for

global human welfare. The prognostic dimension of the frames therefore evolves around long-term strategies to combat environmental change and precautionary measures instead of shortsighted adaptation and reactive (military) measures.

Reports and studies

While it is difficult to find studies that stick entirely and coherently to a (human) environmental security frame among the influential pieces written by US think tanks, some studies combine arguments that fit into an environmental security and environmental conflict frame. In this context, the study *Climate Change and National Security* by Joshua W. Busby (2007) is particularly noteworthy because it contains many elements of an environmental security frame despite its focus on climate change as threat to national security as expressed in the title. Another study that oscillates between the notions of environmental (human) security and the impacts of climate change on conflicts and/ or the US national security is the working paper *Assessment of Select Climate Change Impacts on the U.S. National Security* (Levy et al. 2008) published by the Center for International Earth Science Information Network at Columbia University. The research, which was conducted by a group led by the recognized climate change conflict expert Mark A. Levy, was financially supported by the U.S. National Intelligence Council as an input to a National Intelligence Assessment on climate change implications for U.S. national security published in May 2008.

Busby discusses the adverse impact of climate change on the basis on a broader notion of security, albeit with the state as one important referent object, stating that “climate change, despite lacking human intentionality, can threaten national security” (Busby 2007: 5). In spite of the aim to explore the effects of global warming on US national security, Busby is also concerned with human vulnerability to climate change. This emphasis on human security consequences of climate change is visible in his assessment that global warming constitutes no existential risk for countries as large and stable as the US, but extreme weather events stemming from climate change have the potential to kill larger numbers of people (Busby 2007: 5). It is also reflected in the discussion of the vulnerability of people living in coastal areas to rising sea levels, which he considers as problematic in itself, even

though he later relates the issue of vulnerable coastal population to the issues of large scale and potentially destabilizing migration to the US (Busby 2007: 6).

The study by Levy et al. (2008) uses the concept of human vulnerability to assess selected climate change impacts, namely rising sea levels, temperature increases and water scarcity, even more explicitly. In their analysis of the impact of a global sea level rise, Levy et al. (2008: 6-24) provide estimates of the number of people affected globally, pointing towards the focus on individuals human beings (even though these figures are provided on a country level basis later). Moreover, Levy and his colleagues (2008: 30) analyze the aggregate impact of temperature change on the basis of the synthetic vulnerability approach that the IPCC applied in its *Forth Assessment Report* to assess human vulnerability to climate change (IPCC 2007). Finally, in their analysis of the consequences of water scarcity, Levy et al. (2008: 46-47) calculate the impacts on the basis of a water scarcity index that contrasts the available water supply with the number of people that can be sustained, taking into account energy and industrial production as well as food security. This reference to food security, identified as one of the seven components of human security in the 1994 UNDP definition of human security (UNDP 1994), clearly illustrates that the working paper of Levy et al. (2008) analyzes the impact of climate change in terms of its human security implications. Accordingly, the authors point towards the human welfare burden as a crucial criterion for assessing different ways to increase water supply in order to respond to expected shortages (Levy et al. 2008: 47).

On the other hand, Busby (2007: 7) also extensively links the consequences of climate change to security relevant developments such as interstate dispute over the control of the northern route in the Arctic becoming navigable (cp. also Campbell 2007: 3) and the more direct impact on national security by damaging key military bases, thus weakening national defense resources – issues that are addressed within the environmental conflict frame. In addition, he pays special attention to the vulnerability of countries that represent a national security concern to US, such as producers of resources for the US, sites of military bases, close allies, significant economic partners, or sites of important transportation corridors (Busby: 2007). In a similar vein, Levy et al. (2008: iii) – while in principle assessing human vulnerability to climate change – also aim at identifying countries that are both at high risk

regarding climate change vulnerability and possess risk factors associated with political instability, namely a conflict history, armed conflict in the region a weak government capacity. In doing so, Levy et al. (2007: 1) do not only focus on the country level and national security impacts of climate change, but also relate this to the risk of armed conflict resulting from climate related changes – a storyline that is typically found in environmental conflict frames.

The *Climate Change and National Security* (Busby 2007) report's oscillation between a focus on national security concerns and the impact of global warming on human security is exemplified by the discussion of the climate change vulnerability of Sub-Saharan Africa (Busby 207: 8). While this is initially considered as security relevant per se and not linked to US strategic interests – which according to Busby (2007: 8) are historically low in the region – he then relates the increasing vulnerability of Sub-Saharan countries directly to US national security concerns, discussing destabilization of increasingly important oil producers in the region and the threat of terrorism or (Islamic) extremism exacerbated by state or government failure as a result of climate change (Busby 2007: 9). In a similar vein, Levy et al. (2008: 36) consider the data on country vulnerability particularly important in the case of the Gaza strip due to its security importance for the entire region and hence also for Israel as a US ally, which is, however, the only direct reference to how the vulnerability of countries to climate change relates to US national security interests that can be found in the working paper.

In terms of recommendations, Busby (2008) stresses the importance to develop policies that address the security implications of climate change in multiple domains – an approach that resembles the finding that measures proposed within an environmental security frame do not see the state as the only potential site of solution. More precisely, both adaptation in particular no-regret policies as well as improved disaster response and mitigation – which is also discussed in conjunction with issues of energy efficiency, energy security and a decarbonized energy future – are considered as important to reduce US and other countries' vulnerabilities to the security implications of global warming (Busby 2007: v). With respect to adaptation, it is depicted as counterproductive to treat climate security concerns solely with traditional tools of national defense. Instead, adaptation must be supported by non-defense

agencies (Busby 2007: 22). A sharp reduction in the emission of green house gases is displayed as the only way to avoid unmanageable security problems in the long run. Interestingly, Busby (2007: v, 1-3, 22) stresses the importance of domestic bureaucratic and international governance reforms in order to address global security problem resulting from climate change. Nevertheless, and in conjunction with the oscillation between the environmental conflict and security frames observed previously, Busby (2007: 3) ultimately sees the potential reform of the global governance system as an opportunity to “advance American security interests”.

The Report *Climate Change and National Security* (Busby 2007) has been published by the Council on Foreign Relations, a US non-partisan think tank. The inconsistent framing of the climate change security nexus, including both environmental conflict and environmental security elements, may be partially explained by the fact that Busby conducted interviews with individuals who work on climate change, national security or an intersection of the two issues, including both former military staff and (environmental) NGO activists. While this issue cannot be further explored within the scope of this thesis, it seems plausible that certain groups frame the climate change security nexus differently. For instance, one could imagine the military staff to stick more closely to a notion of environmentally induced conflicts whereas the environmental or development ‘community’ perhaps emphasizes the importance of climate change as a threat to the ecosystem respectively human security.

In contrast to the above-analyzed reports displaying a mixed framing, one influential German report closely sticks to the environmental security frame. Thus, I will shortly outline its most important diagnostic and prognostic elements. The report *World in Transition: Climate Change as a Security Risk* was compiled by the German Advisory Council on Global Change (WBGU 2007), an independent scientific advisory body to the German Federal government. In drafting the report, the experts referred to the state of the art in peace and conflict research and climate change sciences (WBGU 2007: 1). The report considers the possibility of climate-induced conflicts to be very low (WBGU 2007: 1) and rather focus on the impact of climate change on human security. Global warming will threaten the livestock of millions worldwide and thus undermine human security (WBGU 2007: 1, 4). For instance, the degradation of water resources is discussed as a threat to human health (WBGU 2007: 2)

and not as potentially leading to inter- or intra-state wars. The focus on the individual or all human beings as the referent object to be secured is also reflected in the discussion of global warming's threat to human security as a violation of human rights (WBGU 2007: 6). Accordingly, the recommendations focus on reducing human vulnerability to climate change. In that respect, mitigation plays a key role according to the authors (WBGU 2007: 8-10) who provide more detailed targets for climate change mitigation than any other of the studies and reports reviewed. For instance, they stress the necessity of a bisection of green house gas emissions by 2050 to limit global warming to two degrees Celsius). In order to achieve these goals, the report underlines the importance of an enabling global governance architecture and global governance reforms (WBGU 2007: 7-8). Adaptation is mainly discussed as a tool to strengthen the most vulnerable in developing countries, with only one reference being made to state failure and the related security threats (WBGU 2007: 10-12). Summing up, climate change is depicted as a security threat for humankind due to its impact on human security rather than as undermining the security of particular states or communities (WBGU 2007: 1).

In short, I made four remarkable observations with respect to the use of an environmental security frame within studies by US think tanks or advisory boards. Firstly, studies that judging from the title address the national security implications of climate change (and accordingly would have to conceptualize the state as the most important referent object), in some cases also address the vulnerability of individual human beings. Secondly, these studies often ultimately link the threat to human security back to US strategic concerns, for instance through the identification of a huge percentage of vulnerable people in countries that are of strategic interest to the US. Third, there seems to be a certain tendency towards such a mixed framing in particular when the study authors or the experts interviewed both come from the security community and from (environmental) NGOs (see Busby 2007). Forth, the inconsistent framing in term of the diagnosis oscillating between a focus on human and national security implications is at least partly also reflected in the proposed solutions. Policy recommendations of the studies stress the importance of adaptation, including a short-term focus on disaster response (that I associated with the environmental conflict frame before), as well as long-term mitigation.

ECOLOGICAL SECURITY FRAME

Ecological security refers to analyses that deal with the harmful effects that human activities can have on the environment (Cudworth and Hobden 2010: 5). Page (2010: 16) outlines how one can imagine “more radical suggestions for the referent objects” of securitization based on a bio-centric or eco-centric view. This argumentation resembles Detraz’ (2009) conception of ecological security wherein the environment itself is under threat. Rosalie Bertell (2001: 171, emphasis added) develops a similar idea of ecological security, described as a “more egalitarian vision, prioritizing people, human rights, and the *health of the environment*”. Her concept builds upon the idea of rethinking human security in a way that it becomes more sensitive to ecological impacts and provides a conceptual bridge between the environmental security frame concerned with the impact of environmental change on human security and the understanding of ecological security focusing on the health of the environment.

Ecological security approaches were developed in response to and as a criticism of the current predominant framings of the environment security nexus. Erika Cudworth and Stephen Hobden (2010) in particular criticize the dualism between human society and the environment that they try to overcome in their theorizing. The environmental security literature is shaped by the understanding that human beings are threatened by environmental change and occasionally adds that humans can also pose a threat to nature. This dualist thinking falls short of addressing the interdependence of human beings and the ecosystem that lies at the heart of Cudworth and Hobden’s reasoning. From their point of view such a dualist conception of human nature relations underestimates the complex symbioses in the biosphere by “focusing on the security of one referent rather than allowing an analysis which permits the examination of complex and overlapping processes” that constitute the link between the environment and security (Cudworth and Hobden 2010: 8).

In the course of developing and promoting the notion of ecological security, Cudworth and Hobden (2010: 11) aim to ultimately move beyond the study of securitization, even though they acknowledge the role of security as a powerful signifier in the current discourse. Simon Dalby’s writing is another example of such an approach. He has criticized conceptualizing

environmental problems in terms of their security implications and proposes to abandon the notion of environmental security at some point in the future (Dalby 2009: 4).

The ecological security frame follows the notion of complex ecology described by Cudworth and Hobden (2010) as well as the concept of ecological security outlined by Dalby (1992). Dalby's concept of ecological security is influenced by political ecology and complexity approaches, which he attempts to combine in the concept of complex ecology. Both emphasize the interdependence of different elements within a global ecological system and the embeddedness of human beings within the natural world. This growing concern about multiple interacting and independent vulnerabilities also reflects a shift in earth science away from the protection of specific endangered species towards the recognition that both human beings and other species live in a single interconnected biosphere (Dalby 2007: 156). According to this understanding, human and non-human systems are co-constitutive and social human systems intersect with other natural systems (Cudworth and Hobden 2010: 9). The language of ecological security suggests that interdependence and symbiosis are crucial to survival (Dalby 1992: 515). From that perspective, climate change concerns must take into account all sorts of synergies cumulatively rather than individually when trying to address the impacts of global warming (Dalby 2007: 159). While the concept of ecological security focuses on threats to the environment as such and the embeddedness of human beings in the global ecosystem, the idea of complex ecology adds the importance of multiple power relations and intersectionality to the picture. Cudworth and Hobden's (2010: 9) concept of complex ecology takes into account "the ways in which multiple and complex inequalities shape the securities of different populations".

The focus on the interdependency of humankind and the ecosystem described above allows taking into account multiple risks, hazards and insecurities resulting from human-nature relations (Cudworth and Hobden 2010: 11). As a consequence, the possibility of mitigating risk throughout the global ecosystem becomes a key issue. This implies a shift from security to risk alleviation and the attempt to restructure risk-creating activities rather than trying to secure particular groups, be it the state or individuals. Instead, concerns with the wider biosphere become central. Policy responses within an ecological security frame question the possibility of techno-institutional fixes in response to security implications of environmental

degradation (Cudworth and Hobden 2010: 8). Instead, responses proposed within the ecological security frame aim at a drastic departure from the current political, social and most importantly economic practices predominant in the Global North. Policy measures cannot be limited to the provision of security, but rather require changing modes of production and consumption up to the point of questioning the pretended consequence-less consumption and considering limits of growth (Dalby 2007: 159-160).

The protection of the ecosystem relates to security concerns insofar as security for human beings “depends increasingly on the survival of an intact global ecosystem” (Dalby 1992: 515) – an assessment that is ideal-typical for the ecological security frame with its focus on symbiosis and interdependence. In that context, security is very differently understood. A typical storyline reads as follows: Interdependence and symbiosis are central to survival and survival ultimately depends on achieving a sustainable lifestyle based on limits of consumption and recycling of resources (Dalby 1992: 515). Accordingly, ecological security does not only question the role of the state or human beings as the referent objects, but the current mode of economic development and the “modern (state) models of social organization” as a whole (Dalby 1992: 515), pointing to the inability of markets to secure the basic needs of people and protecting the environment. However, proponents of the concept of ecological security are very critical about the ability of state actors to realize the necessary change, because the preservation of the global ecosphere could require “the political structures of the state to be further called into question and the assumption about absolute territorial integrity to be further challenged in favor of ecologically based strategies” (Dalby 1992: 515).

In short, the ecological security frame emphasizes the embeddedness of human beings in a global ecosystem as the central theme. The environment is seen as good in its own right, resulting in a focus on threats to the environment as such, including plants and animals. Policy recommendations are based on the central demand to move away from security to risk alleviation towards the restructuring of risk creating activities (such as changing the market-based economic system), rather than attempts to secure specific groups via mitigation or adaptation.

Reports and studies

Due to the fact that the concept of ecological security, and most notably the notion of complex ecology, was developed – predominantly in the academic literature – as a criticism of currently predominant interpretations of the climate change security nexus, one can rarely find think tank studies or reports that stick closely to the ecological security frame. The *Study Of Climate Change and Crystal Balls: The Future Consequences of Climate Change in Africa* written by Busby et al. (2010) – itself a critique of previous studies analyzing the climate change conflict nexus – is one of the few exceptions one can find in the US discourse. The study was published under the Climate Change and African Political Stability (CCAPS) program at the LBJ School of Public Affairs at the University of Texas at Austin. Based on an account of the current knowledge of climate change impacts in Africa and a severe criticism of past attempts of social scientists and policy analysts to assess the potential security consequences of climate change, they offer their model of climate vulnerability assessment in Africa.

Rather than trying to predict the security outcome of climate change in narrowly defined terms, Busby et al. (2010: 26) aim at identifying “the persistent sources of vulnerability from diverse perspectives that may make particular places less able to cope with climate change”. In doing so, they utilize a basket of indicators of vulnerability, including physical, household and community, governance and political violence as well as demographic factors (Busby et al. 2010: 26). Their reference to physical sources of vulnerability suggests that they do not only look at human reaction to environmental degradation but also consider how the ecosystem itself, the physical environment, reacts to changes in the environment. In other words, Busby and his colleagues do not only look at how people at the individual, community and government level respond to climate change, but also intend “to be broadly representative of the diverse sources of vulnerability and the natural routes of response to the physical manifestation of climate change” (Busby et al. 2010: 28).

Busby et al. link the impact of climate change on the ecosystem to the impact on human vulnerability. Their consideration of the interlinkage between human and natural reaction to climate change indicates a certain attention towards the interconnectedness of human beings and their surrounding ecosystem that characterizes the ecological security frame.

This is especially illustrated by Busby and his colleagues' discussion of climate change impacts in Africa, where a focus on ecosystem and on human security impacts go hand in hand. Africa is characterized as particularly vulnerable to climate change in accordance with the IPCC's Fourth Assessment Report (2007), both in terms of the stability of ecosystems such as tropical rain forests, coastal mangroves, coral reefs, water resources in dry tropics and in relation to human health in populations with low adaptive capabilities (Busby et al. 2010: 12). The focus on the embeddedness of human beings in ecological systems is manifest in the discussion of the impact of climate change on aquatic systems. Busby et al. (2010: 14) do not only note that already a small increase in global warming can alter the aquatic ecosystem, but link this problem to the deleterious effects on protein supply and food security in Africa, thus connecting changes in the ecosystem to human security and stressing the interconnectedness of social and natural systems.

While Busby et al. (2010: 28) ultimately focus on the impacts of ecosystem changes on human beings (and also consider country and sub-national impacts), a focus on the environment or the global ecosystem as such being the referent object can be rather found in reports and studies written and published within the environmental community. Although not written by US think tanks or advisory bodies on which I focus in the exemplary illustration of the three frames securitizing climate change, I will give a few examples from the *Global Environmental Outlook 4* (GEO-4) (UNEP 2007). This report published by the United Nations Environmental Program was written by ten chapter expert groups, consisting of coordinating lead authors, lead authors and chapter coordinators, supported by the High Level Consultative Group. The draft outputs were subject to consultation as well as expert and government peer review as a part of a comprehensive consultative process that began in 2004 (UNEP 2007: 1).

Similar to the approach by Busby et al. (2010), the Global Environmental Outlook analyzes changes in the global ecosystem in terms of their importance for human well-being and in particular sustainable development, albeit with an even stronger focus on the interconnectedness of environmental change and prospects for human development than in the report by Busby et al. described above. The study is guided by a conceptual framework that "illustrates many of the links between environmental change and people's security"

(UNEP 2007: 4). The GEO-4 report stresses links between the environment and development, stating that “changes in ecosystem can affect natural resources as well as financial, material and human assets” and discussing how biophysical and social systems can reach tipping points in an interconnected manner (UNEP 2007: 5). For instance, the exploitation of the aquatic ecosystem is described as both putting at risk the biodiversity, i. e. threatening the environment itself and endangering the sustainability of food supplies for individuals (UNEP 2007: 11, cp. also the similar discussion of the Arctic regions [UNEP 2007: 19]). More generally, global warming is addressed as threatening food security (as a component of human security) as well as biodiversity (UNEP 2007: 4), being an element of the environment as such.

In contrast to all the studies and reports analyzed previously, GEO-4 does not only discuss how states or human beings are threatened by environmental degradation, but also emphasizes that unprecedented environmental change is caused by human activity (UNEP 2007: 4), hence illustrating how human agency threatens the survival of the global ecosystem. Similarly, conflict and war are not addressed as an existential security threat originating from or being exacerbated by climate change. Instead, the displacement of millions of refugees who are often forced to move to marginal ecological areas when fleeing from civil war and inter-state conflict is addressed as undermining the capacity of ecosystems (UNEP 2007: 20) – a noteworthy focus on the ecosystem as the referent object.

On the other hand, ecosystems are rather rarely addressed in their own right, but rather as providing the “natural resource capital needed for development” (UNEP 2007: 6), exemplified by the reference to biodiversity in terms of providing natural resources for medicine (UNEP 2007: 6). In line with this reasoning, the impact of climate change on ecosystems, while also discussed in terms of the threat to certain species, is mostly considered as a major global threat because it negatively affects the ecosystems’ “ability to function and provide services” to the people, especially the rural poor who are directly affected by a deterioration and loss of the ecosystem (UNEP 2007: 12-13). Likewise, land degradation and the related loss of biodiversity is considered as threatening because it affects human development options, with the poor population in developing countries being the most vulnerable and suffering disproportionately (UNEP 2007: 4-5).

This kind of reasoning is also reflected in the recommendations, which focus on reducing people's vulnerability to environmental changes through timely prevention, mitigation and if necessary people-centered adaptation (UNEP 2007: 26) rather than protecting the ecosystem from human activity. Thus, the aim is to include environmental considerations into the (human) development framework (UNEP 2007: 25) and not developing development policies based on natural resource limits as suggested by Dalby (1992) as well as by Curdworth and Hobden (2009).

In conclusion, one cannot easily find a study or think tank report that entirely sticks to the ecological security frame. The study of Busby et al. (2010) on future consequences of climate change in Africa is one of the few written by US think tanks or advisory boards that explicitly discuss the embeddedness of human beings in the ecological system and the ways in which climate change affects both human beings and the environment as such. Interestingly, his study is also highly critical of the current policy publications on the climate change conflict nexus, indicating that one can more likely find a framing of the security implications of climate change that is close(r) to the ecological security frame among studies that criticize the current 'mainstream'. The fact that interlinkages between social and ecological systems and a discussion of the environment as such being threatened by human activity – core characteristic of the ecological security frame – are prominently discussed in the fourth Global Environmental Outlook (UNEP 2007) potentially shows that notions of ecological security can be rather found in the environmental than in the security or foreign policy community. Finally, it is noteworthy that while one can find traces of the ecological security frame within the diagnostic part of certain studies, the recommendations, even of the GEO-4, ultimately focus on improving human security (or development) rather than protecting the environment for its own sake, and even less question the current market economy (see for instance the recommendations how to price the use of ecosystem services in UNEP 2007: 29), which was advocated as the way forward to achieve ecological security by Dalby (1992).

SUMMARIZING TABLE

The table below summarizes the key features of the three frames – environmental conflict, environmental security and ecological security – as they have been developed above. The

typology pays particular attention to the diagnostic dimension, including a focus on the (causal) connection made between the existential threat and the referent object. Hence, it picks up my discussions in the previous chapters of how a framing perspective on securitization moves away from the conception of securitization as a singular linguistic structure by taking into account not only the existence of different frames securitizing different referent objects but in particular the way *how exactly* issues are presented as an existential threat.

Framing Discourse	Referent Object	Diagnostic Dimension	Prognostic Dimension	Related Key Words
Environmental Conflict	Particular communities, including states	Focus on violent conflict when natural resources degrade (either directly as conflict over resources or triggered by migration etc. resulting from environmental change), environment as a limited resource	Short term measures, rather adaptation and reactive (military) measures	Resource security, resource conflicts, degradation of natural resources water wars, energy security and energy diversification, military responses
Environmental Security	All human beings, the individual	Climate change as an everyday security threat for all human beings, focus on human vulnerability to environmental change, environment as a common good	Long term strategies to combat environmental change and precautionary measures, rather than focus on mitigation	Human security, global security, climate as a common good, human vulnerability, global governance infrastructure
Ecological Security	The environment or ecosystem as a whole	Embeddedness of human beings in global ecosystem, focus on how environmental change poses threat to the environment as such, including plants and animals, environment as a good in its own right	Move from security to risk alleviation, restructuring of risk creating activities rather than attempts to secure specific groups via mitigation or adaptation	Ecosystem, limits of growth, human-nature relations, interdependence, symbiosis, risk

CONCLUSION AND FUTURE AVENUES FOR RESEARCH

The security implications of climate change feature prominently on the international (security) agenda. In July 2011 the issue of climate change was discussed in the UN Security Council for the second time, following a German initiative. In contrast to the 2007 debate which addressed the issue of climate-induced conflicts as a result of resource shortage (UN Security Council 2007a) as well as questions of renewable energies, energy security and energy diversification, this year's debate focused on the issue of climate change related migration, the disappearance of small island states as a result of rising sea levels and the related human security questions (Zeit Online 2011). These two examples illustrate the complex relation between climate change and security and the multiple ways of how to approach, display and address the link between environmental degradation and security concerns.

This thesis has set out to develop a framing approach to securitization, based on the critique of the Copenhagen School's understanding of security as a fixed grammar of extremity and the observation that there exist different way of depicting environmental degradation as an existential threat, which has been made in relation to the securitization of the environmental. Earlier works have either criticized the fixity of the notion of security (Williams 2011, Trombetta 2008, Elbe 2005) as conceptually constraining or provided an empirically driven account of different discourses securitizing climate change (Detraz and Betsill 2009, Trombetta 200, 2011, Brzoska 2009). Either way, there is a lack of a coherent theoretical framework of how to account for these different securitizing moves.

In line with Benford and Snow (2000) I understand frames as interpretative schemes that provide a description of the problem (diagnostic dimension) and propose a solution (prognostic dimension) that implies a certain sense of severity (motivational dimension). I have argued that looking at securitization through the lens of framing adds to our understanding of securitization in different ways. Firstly, a framing approach to securitization takes into account the different ways of framing a security image. Rather than undermining the whole idea of securitization, such an approach preserves the analytical distinctiveness

of security – the construction of an existential threat – but offers an analytical tool to assess how the threat is constructed, in reference to which objects to be secured and how the particular frame influences the measures proposed in response. In their development of securitization theory, Buzan et al. (1998) describe how the invocation of an existential threat to a referent object (diagnosis) is, once agreed by the respective audience, followed by a legitimization of extraordinary measures (prognosis and motivation). However, when looking at the (causal) connection made between the existential threat and the referent object, i. e. the precise evaluation or interpretation of the respective problem, the seeming automatism between existential threat and emergency measures can be put into perspective. Moreover, a departure from the fixed understanding of security as extremity also addressed the bias toward collective middle range referent objects inherent in the Copenhagen School's framework. By conceptualizing security as essentially antagonistic and zero-sum in nature, referent objects that have an "other" are more prone to successful securitization. Hence, it becomes extremely difficult to construct humanity or the global ecosystem as a referent object that deserves protection, because it lacks such an "other". At the other end of the scale, individuals also lack a legitimate claim to survival, which they need to establish a wider security legitimacy (Buzan and Wæver 2009: 255). In addition, a framing approach to securitization also shows how different frames may securitize different reference objects since framing research itself describes how frames differ in terms of the respective referent objects addressed.

Secondly, a framing approach to securitization also highlights how different ways of constructing a security threat can emerge, challenge each other and change over time. While framing research has overcome its initial static bias with the study of frame transformation and frame disputes, securitization theory with its fixed understanding of security as extremity fails to capture that different logics of security can be brought into being through the securitization of non-traditional security issues (Trombetta 2011), for instance an understanding of security based on prevention which may compete with the traditional understanding of security as a state of emergency. Such processes can be better understood with the help of the concepts developed in framing research, in particular the above mentioned research on frame transformation and frame disputes.

Thirdly, a framing perspective of securitization can also shed new light at the normative implications of securitization closely related to its outcome in terms of politicization and securitization. However, within the time and space constraints given, I could only provide some initial thoughts on how research could further proceed along this line. Previous literature has already addressed the question whether (successful) securitization necessarily results in (normatively problematic) emergency policies or can also lead to politicization. A framing perspective adds to our understanding insofar as one could imagine that particular frames rather contribute to a politicization of the debate defined as an increase of argumentative positions in the debate as a consequence, whereas others rather result in a normatively problematic securitization in the sense of militarization or a narrowing down of positions to a single dominant one. In order to analyze this question, a systematic comparison of different frames securitizing a particular issue and their outcome in terms of policy measures would be necessary, preferable by comparing the impact of these different frames across different countries,

In a second step, I applied the idea of different frames securitizing an issue to the environmental sector. Based on the literature, I identified and deduced three ideal type framings of the relationship between the environment and security, which I label environmental conflict, environmental security, and ecological security. In line with the theoretical framework that I developed previously, I describe how they differ in respect to the referent object they invoke (who or what is threatened?), the causal connection they postulate (what leads to which consequences and why?) and the policy responses they demand (what needs to be done?).

The environmental security frame postulates a narrow relationship between environmental degradation and violent conflicts, sticking to a rather narrow understanding of security and conceptualizing the state as the referent object. Accordingly, policy recommendations are limited to short term adaptation at the state level and reactive (military) responses. The more general environmental security frame is concerned with the effects of environmental degradation on the everyday lives of human beings, following a broader concept of human security and thus focusing on the individual or all human beings as the referent objects. The proposed measures focus on long-term strategies of mitigation as well as adaptation in

terms of reducing human vulnerability to environmental change. The ecological security frame sees human beings as part of a greater whole and on this basis focuses on the environment as such as the main referent object. This discourse tends to shift from security to risk alleviation and aims at restructuring and transforming risk-producing activities rather than securing specific groups.

I illustrated this typology with evidence from six documents by US think tanks addressing the security implications of climate change, which predominantly focus on the national security implications of global warming, one famous example from the German context, the report *Climate Change as a Security Risk* compiled by the German Advisory Council on Global Change (WBGU 2007), that is considered to be one of the most influential examples of a human security approach to climate change as a security risk (Brzoska 2009) and the *Global Environmental Outlook* that serves to illustrate the ecological security frame. While most of the reports analyzed stick closely to the environmental conflict frame (CNA 2007, Campbell et al. 2007, Schwartz and Randall 2003), those that also refer to the human security implications of climate change are characterized by a mixed framing, oscillating between a focus on environmental conflict and environmental security (Levy et al. 2008, Busby 2007). Traces of a concern with the ecosystem as such being existentially threatened could only be found in one study (Busby et al. 2010) published in the US but figure prominently in the UNEP's fourth *Global Environmental Outlook*. In addition to illustrating the three different frames securitizing environmental degradation that I identified previously and providing a more nuanced picture of the respective storylines, the review of the six studies raises a number of questions for further research.

A noticeable correlation between the actors involved in writing particular reports or at least in the consultative process and the predominant frame used in the respective documents provokes the following question: Who are the actors articulating a specific form of securitizing climate change, and why do they pursue one way of linking climate change and security rather than another? The predominance of the environmental security frame in studies that closely cooperated with (former) military staff in contrast to references to the notion of environmental or ecological security in studies whose authors interviewed experts from the development or environmental community seems to indicate a certain propensity

of particular actors towards specific frames which would be a promising trajectory for future research. As regards the motivation, Trombetta (2008) has suggested that particular understandings of security are used in order to make the argumentation more familiar for the targeted audience, for instance to alert the security community to the impacts of environmental degradation. This observation, too, could be specified with the help of a more thorough analysis of different frames securitizing climate change and the respective frame sponsors.

Subsequently, the question arises how and under what conditions these different representations of the climate change security nexus translate into policies. With reference to Doty's (1998/99) work on migration, McDonald (2008) poses the questions of how some particular articulations of security became predominant, through which processes certain actors were empowered to 'speak' security and to what extent alternative framings of security were marginalized or silenced. Climate change would provide a case to exploit these aspects that are only partially addressed within the Copenhagen School's framework. The results of the reports that I analyzed continue to be questioned within the peace and conflict research community. Nordas and Gleditsch (2007: 633) concluded that "unfortunately, the precision in conflict prediction remains at the stage where meteorology was decades ago: the best prediction for tomorrow's weather was the weather today." On the other hand, one of the methodologically weakest studies, the attempt to construct the implications of an climate change induced collapse of the Gulf Stream by Schwartz and Randall (2003), remains amongst the most widely cited (Busby et al. 2010). This leads to the question of how one can define the success of frames (see Vuori 2008 for the suggestions to define it in terms of policy relevance) and how such a success can be explained. Framing research and securitization approaches identify very similar conditions for success, which could shed further light at the question how and why particular frames translate into policies. Both the success conditions for framing as summarized by Snow and Benford (2000) and the facilitating conditions of securitization (Buzan et al. 1998: 32, Balzacq 2005, Stritzel 2007) consist of an internal, textual dimension which refers to its inner consistency and narrative fidelity (Benford and Snow 2000), and of an external dimension, namely the resonance with existing discourses (as well as the empirical credibility and experimental commensurability, cp. Benford and Snow 2000) and the position of the securitizing actor or frame articulator (Stritzel 2007, Benford and Snow 2000). The question of success conditions of securitization

is also related to the identification of different frames insofar as the use of a particular frame to securitize an issue was identified as one of the conditions that potentially influences if (de-)securitizing attempts succeed (Guzzini 2011: 331, who uses the term “discourses” to refer to what I have described as frames).

Finally, the question arises what the case of climate change tells us about the role that securitization plays in politicization. Trombetta (2011: 145) has argued in the case of the ozone regime that the politicization of the issue occurred through its securitization, but a systematic account of the possibility of such a process in climate change policies is lacking. It seems a worthwhile endeavor to examine the role that different frames sticking more or less closely to the grammar of security as defined by Wæver and proposing extraordinary measures that include military involvement (in our case the frame of environmental conflict) play in that context.

A framing approach to securitization addresses several problems of the Copenhagen School’s approach that have been highlighted by critics in recent years and provides a fruitful point of departure for further research. Nevertheless, the question arises whether the notion of securitization as framing undermines the basic idea of the concept of securitization. I recall a quote from the un-published manuscript ‘Security, the Speech Act’ by Wæver (1989) that Stritzel (2011: 352) cites in response to the question if his notion of securitization as translation destroys securitization as a concept: “Truly critical analysis works with the logic of the traditional discourse – from the inside – and reinforces an already existing dimension of its internal logic until this becomes destabilizing for the traditional security thinking. Then – because of the ‘respectful’ treatment – the classical concept is displaced. We deal with the classical core – but in a new circumscription” (quoted after Stritzel 2011: 352). Not only with respect to the traditional understanding of security, but also in the debates about the concept of securitization and its shortcoming, the need for a critical re-examination ‘from inside’ continues to exist.

APPENDIX I: DOCUMENTS REVIEWED

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APPENDIX II: STORYLINES IN DOCUMENTS REVIEWED

	Referent Object			Diagnosis								Proposed Policy Response			
	State/ Particular Community	Individual/ Human security	Eco- system	(Violent) Conflict (1=internal, 2= intra- state, 3= global)	Re- source scarcity	Human vulne- rability, human security	Energy security, energy diversi- fication	(Mass) migra- tion, refugees	Terrorism, extremism, failed states	Geo- strategic impli- cations	Spill- over effects	Miti- gation	Adapta- tion	National De- fense, fortress building	Global Gover- nance
Campbell et al. (2007)	X	(X)		1, 2, (3)	X	(X)	X	X	X	X			(X)	(X)	
CNA (2007)	X	(X)		1, 2	X	(X)	X	X	X	X	X	X	X	X	
Schwartz and Randall (2003)	X			1, 2, 3	X		X	X				(X)	X	X	
Levy et al. (2008)	X	X	(X)		X	X		(X)							
Busby (2007)	X	X		1, 2, 3		X	X	(X)	(X)			X	X		X
WBGU (2007)	X	X		1, (2), 3	X	X		X	X			X	X		X
Busby et al. (2010)	(X)	X	X	(1,2)		X									
GEO-4 (UNEP 2007)		X	X			X						X	X		

Explanation

X = Key storyline

X = Appears as storyline

(X) = Mentioned only once or twice

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