The Neoliberal Biopolitics of Climate Security: Resilience and the European Union's Securitization of Climate Change

by

Dotan Amit

B.A., University of British Columbia, 2016

Project Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Arts

in the
Department of Political Science
Faculty of Arts and Social Sciences

© Dotan Amit 2016

SIMON FRASER UNIVERSITY

Fall 2016

Approval

Name: **Dotan Amit**

Degree: **Master of Arts**

Title: ***The Neoliberal Biopolitics of Climate Security: Resilience and the European Union's Securitization of Climate Change***

Examining Committee: **Chair:** Dr. Genevieve Fuji-Johnson
                                             Professor

Dr. James Busumtwi-Sam
Senior Supervisor
Associate Professor

Dr. Laurent Dobuzinskis
Supervisor
Associate Professor

Dr. Brenda Lyshaug
External Examiner
Senior Lecturer
School for International Studies

Date Defended/Approved: December 22, 2016

Abstract

Contemporary understandings of resilience were initially developed in the discipline of ecology to theorize ecosystems' capacities to absorb, adapt, and transform in the face of shocks and stresses. Since then, the concept of resilience has informed a versatile and highly mobile set of guiding principles that have migrated to numerous policy fields. In recent years, it has also been a partial yet increasingly powerful prism through which climate change has been constructed as a security threat. In this regard, some populations, mainly residing in the Global South, are deemed insufficiently resilient to the effects of climate change, thereby generating risks of societal disruption, state failure, and population displacement that may adversely affect the Global North. The critical resilience literature has argued that the rise of resilience-thinking is predicated on its intuitive resonance with a neoliberal injunction to be self-reliant. An examination of European Union (EU) institutions' and agencies' climate security discourse and practices corroborates this claim, while also generating novel insights into neoliberalism's contemporary role in the social construction of threats. However, it also reveals the role of antecedent security discourses and practices – in particular human security, risk management, and the security-development nexus – in structuring climate threat discourse. Drawing from the Paris School of Security Studies and from Foucauldian writings on biopolitics, this project argues that the entanglement of resilience and climate security in EU discourse is a function of both antecedent biopolitical security practices, and distinctly neoliberal sensibilities. The EU's securitization of climate change, in effect, transfers responsibility for managing the effects of climate change away from societies chiefly responsible for it, and onto people most burdened by it.

Keywords: biopolitics; climate security; international development; Paris School; resilience; risk management

Acknowledgements

I would like to thank all the members of my examination committee, including: Dr. James Busumtwi-Sam, who supervised my progress through the M.A. program, and who placed so much trust in my abilities as a student and researcher; Dr. Laurent Dobuzinskis, for being my Co-supervisor, and for leading me to be more careful in my analysis regarding the role and influence of neoliberalism as it related to my research topic; and Dr. Brenda Lyshaug, who pushed me to more deeply consider my project's normative implications, and who also agreed to be my External Examiner on short notice.

I am grateful to Mark Machacek, who took time to read and comment on my work repeatedly, at almost every stage of the project, and who was there to talk to whenever I needed to test out new ideas.

Finally, I want to thank Alyssa Idler, whose persistent reflections on the deep connections between culture and power strengthened my sense of the value of my own perspective within this research project.

Table of Contents

List of Acronyms

AGIR   Global Alliance for Resilience Initiative

CMDRR   Community-managed Disaster Risk Reduction

CBEWS   Community-based Early Warning System

ECHO   European Commission Humanitarian Aid and Civil Protection Operations

EPRS   European Parliamentary Research Service

ESDN   European Sustainable Development Network

EU   European Union

MSY   Maximum Sustained Yield

NGO   Non-governmental Organization

SHARE   Supporting the Horn of Africa Resilience

UK   United Kingdom

UN   United Nations

UNFCCC United Nations Framework Convention on Climate Change

US   United States

Chapter 1.   Introduction

1.1. From Security to Resilience

In recent years, governments, scientists, and international organizations have increasingly come to perceive climate change as an issue with international security implications. Global warming is no longer understood solely through the prism of 'low-political' sectors such as environmental policy and economics, but is now said to potentially threaten political order. Climate change, in other words, has been securitized.

To acknowledge the growing chorus of voices that speak of climate change in security terms is not to overlook the variety in perspectives on what the relationship between climate and security actually looks like. As Buzan has observed, the term 'security' is "an essentially contested concept" (29), with a seeming unity that, in matter of fact, comprises a mosaic of complementary, competing, and irreconcilable meanings. The same 'contestedness' is true of the notion of climate security, which has variably (and non-exhaustively) been understood in terms of the potential for environmental destruction to worsen civil conflicts in the Global South (Reuveny), increase migration pressure towards the Global North (see Methmann and Oels), threaten coastal military infrastructure (United States Department of Defense), generate risks of great power conflict (Gleick), and undermine prospects for economic growth (see McDonald, 2012).

This research project, however, focuses on one concept in particular that has emerged as a partial yet increasingly powerful principle guiding climate security politics: as a growing consciousness takes stock of the adverse effects of the "Anthropocene", climate security is increasingly being spoken of in terms of "the new ideal of *resilience*" (Evans and Reid 2-3; original emphasis). The term resilience refers to the capacity of a 'system' to withstand stresses and shocks while still maintaining functional integrity and system form. As numerous authors have noted, resilience-thinking inhibits ambitions to

defend a referent object, opting instead to prepare and equip that object with the capability to endure those "threats now presupposed as endemic and unavoidable" (ibid. 42). Resilience, in other words, emphasizes the requisites for prevailing modes of organization to persist in the face of threats, rather than preventing threats *per se.* Going further, these authors observe that applications of resilience theory in a wide range of policy fields are habitually aligned with its contemporary formulation in the discipline of ecology, which posits that a system's exposure to stresses and shocks can in fact strengthen capacities to adapt in the face of future crises. Resilience, then, envisions insecurity as serving a developmental function, given that "endangerment" is now said to be a required inducement to change and adapt oneself, and is therefore necessary for fostering life, "individually and collectively" (ibid. 64; also see Zebrowski, 2009).

Methmann and Oels argue that "[r]esilience is becoming the dominant mode of securing in the face of environmental dangers" (51). Indeed, numerous, organizations and agencies acting internationally have elaborated a discursive link between climate security and resilience, and have undertaken concrete projects for fostering resilient communities, populations, and states globally. These entities include the United Kingdom (UK), the United States (US), Germany, the Benelux countries (Methmann and Rothe), several United Nations (UN) agencies (Reid, 2013), the World Bank, and numerous major non-governmental humanitarian and development organizations (Methmann and Oels). The European Union (EU) has also emerged as a set of institutions and agencies that have deepened the climate security-resilience nexus. For instance, Members of the European Parliament were advised in a briefing by the European Parliamentary Research Service (EPRS)[1] that in the context of the overlapping issues of humanitarian and development aid, conflict prevention, peacebuilding, disaster risk reduction, and climate change adaptation, "resilience is becoming one of the key concepts of foreign and security policy" (Pawlak 1).

---

[1] The EPRS is "the European Parliament's in-house research department and think tank", and is designed to provide information on policy issues pertaining to the EU, as well as increase Members of the European Parliament's "capacity to scrutinise and oversee the EU Commission and other EU bodies" (EPRS).

1.2. Neoliberalism, Development, Security

The proliferation of the concept of resilience in international affairs has prompted research into the reasons for its advance, with numerous analysts adopting the rationalist stance that resilience-thinking is a logical 'best answer' either to characteristically new challenges, or to novel discoveries about the best way to deal with both old and new ones (see Zebrowski, 2013). The critical resilience literature, in contrast, has advanced a set of arguments that are attentive to the 'conditions of possibility' under which resilience could ever take root in policy and practice. According to these arguments, the rise of resilience is predicated on its intuitive resonance with neoliberalism, understood as a form of governance that devolves responsibility for managing risk in order to induce personal innovation and entrepreneurialism. Relatedly, neoliberalism and resilience extol the virtues of self-reliance, which refers to individuals' and communities' capacities to secure their own well-being in a de-centralized realm that discourages the provision of direct and unconditional external assistance (Juncos). Neoliberal- and resilience-thinking maintain that exposure to risk and adversity – whether in the form of free market rigours or the turbulence of an ecologically precarious life – is productive of entrepreneurial and adaptive capacities at individual and local levels (Walker and Cooper). Accordingly, diminished interventionism and the withdrawal of unconditional assistance to people by states and other organizations constitute productive practices that induce self-reliant subjects empowered to satisfy their own needs. This project, then, follows Larner's and Walters' conceptualization of neoliberalism, namely, "not as an ideology or philosophy, nor as the most recent political

form of the capitalist agenda, *but in terms of certain arts, tactics, and practices of governing* (4; added emphasis).[2]

Numerous authors have also researched the advance of resilience discourse in international development practice for climate change adaptation specifically (Reid, 2013; Methmann and Oels). Under this development paradigm, the targets of international development, who are primarily the global poor, must adopt a variety of habits and strategies to render themselves more adaptive, and therefore resilient, to the effects of climate change. In this context, development programs deployed by states and partnered non-governmental and international organizations seek to educate, equip, and induce target populations to factor in the effects of climate change into their routines and decisions. In accordance with the principle of "advanced liberal government", resilience-thinking in international development for climate adaptation "multiplies, individualizes and decentralizes risk management" (Methmann and Oels 53), thus transferring responsibility for managing the effects of climate change away from those societies chiefly responsible for it, and onto people most burdened by it.

Accounting for how neoliberalism establishes the discursive terrain upon which resilience flourishes makes it possible, indeed worthwhile, to understand resilience within the context of other major neoliberal development policy frameworks that have

---

[2] This helps overcome a limitation of conventional analyses that measure neoliberalization in terms of a more or less interventionist state. For Joseph, neoliberalism cannot be reduced to the "'hollowing out' of the state" (2014: 287), but should be seen as a form of governance that works through the free market and other sites to *produce* subjects who identify as entrepreneurial and self-reliant. Abrahamsen argues that de-centralization under neoliberal governance confronts its subjects with "a vast array of new mechanisms and techniques of auditing, accounting, monitoring and evaluation which link these various and disparate entities to political strategies at the state level" (1459). Neoliberalism, then, is not a prescription for 'less government', but rather a class of practices that intensify governance in particular ways.

been deployed over the last three decades. While not functionally equivalent to the International Monetary Fund's structural adjustment programs, the Good Governance Agenda, and the Poverty Reduction Strategy Papers, resilience is legitimated on the basis of its ideational fit with the dominant international development paradigm aspiring to shift the burden of development from states to people (Duffield, 2007: 69).

Various studies have examined the impact of the neoliberal policy frameworks mentioned above (Hickel, 2012; LeBaron and Ayers). What is less fully explored, however, is how neoliberal sensibilities help structure discourses of climate threat by framing climate insecurity partly, and increasingly, in terms of deficits in resilience and self-reliance in developing countries. This is the contribution that this research project seeks to make. As will be discussed in Section 3.2.2, international development practice has long been articulated through discourses of international threat that perceive states and populations in the Global South as threatening to the North on account of their underdevelopment. Consonant with security's 'essentially contested' nature, discourses of Southern underdevelopment and attendant threat have changed through time and space (see Busumtwi-Sam). New conceptions that define global underdevelopment as deficits in resilience therefore help to redefine shortfalls in self-reliance as generative of security threats to the Global North.

To be sure, this research project does not challenge or deny that 'underdevelopment', human insecurity, and 'failed states' in the Global South generate instabilities that adversely affect people in the North. However, it seeks to inspire caution against an overly optimistic view of resilience practice, insofar as its solutions focus on inducing particular kinds of subjectivity among aid recipients while ignoring the broader

5

structures and processes of inequality, deprivation, and dispossession in the global political economy (Ayers; Chowdhury; Harvey; Abrahamsen).

1.3. Case Selection, Research Questions, and Project Purpose

1.3.1. Case Selection

The EU was chosen for examination in this research project because a number of its institutions and agencies have demonstrated strong commitment to fostering resilience in parts of the Global South. Since 2011, the EU has erected two international governance initiatives for resilience: the Global Alliance for Resilience Initiative (known by its French acronym, AGIR) targeting the Sahel, and the Supporting the Horn of Africa's Resilience (SHARE) initiative. These initiatives engage governments, non-governmental development and humanitarian organizations, international organizations, and local communities in the promotion of resilience. The Council of the EU and Commission, moreover, have explicitly outlined the linkages between weak adaptive capacities in developing countries and the increased burdens of climate change, and stated that promoting resilience internationally will promote Europe's own security.

In an edited volume on research methods in Critical Security Studies, Salter remarks that "there is an inclination toward the specific in interpretivist methods, but that does not mean that more generalizable conclusions cannot be drawn. Case selection must still be defended, either because the case is typical of a larger phenomenon or because it is unique but important in some other articulated way" (2). The resilience discourse circulating within EU agencies appears consistent with other discourses on resilience operative within the UN (Reid, 2013), various NGOs such as Greenpeace, and the World Bank (Methmann and Rothe), suggesting that the EU's resilience discourse constitutes a typical case (Gerring 91).

The EU also presents an interesting case as it generates novel and potentially generalizable insights into neoliberalism's contemporary role in the social construction of

threats. As this project will discuss, the notion that underdevelopment in the Global South constitutes a security threat to the North has been expressed consistently by various states and organizations. As underdevelopment has come to be increasingly defined in terms of deficits in self-reliance, so too has lack of self-reliance come to be seen as a security threat within EU security/development discourse. Further research will reveal if this is also true among other organizations and entities

1.3.2. Research Questions and Project Purpose

In light of the climate security-resilience link maintained in numerous sites in the EU, this project asks the following questions:

1. Under what conditions did resilience emerge as a guiding principle of EU climate security discourse and practice?
2. What measures and practices does the EU deploy in the name of climate security and resilience?
3. What are the political and ethical implications of securitizing climate change through resilience?

In answering these questions, this research project makes two inter-related arguments: the first theoretical, the second normative. First, the EU`s turn to resilience as an answer to climate insecurity emerges at the intersection of antecedent security discourses and practices on one hand, and distinctly neoliberal sensibilities on the other. With regard to the climate security's antecedents, this project will specifically examine human security, risk management, and international development, characterizing them as expressions of biopolitical rationalities seeking to govern populations globally (see Duffield, 2007). With regard to the neoliberal sensibilities, this project assumes these to be the state`s withdrawal from direct intervention in the economy and from welfare provision to various extents (a) in the name of efficiency (Hickel, 2014: 1357) and (b) to induce self-reliant subjects (Reid, 2013: 358). Security interfaces with resilience via international development (resilience is taken up into the security-development nexus),

and resilience interfaces with neoliberalism in the shared reticence concerning interventionism and in the mutual celebration of self-reliance. Deficits in self-reliance in parts of the Global South are therefore deemed to be security threats to Europe.

Second, in constructing climate insecurity as an issue of resilience deficit in parts of the Global South, the EU's climate security discourse inverts responsibility for the adverse effects of climate change. It is not European and other Northern societies that generate climate insecurity on account of their overdevelopment and attendant need and capacity to consume fossil energy, but rather Southern populations that threaten security on account of their underdevelopment and consequent susceptibility to climate change-induced ecological degradation. Under this discursive regime, resilience works to render the objects of development responsible for their own fate.

This project has two objectives. The first objective is to *identify the conditions of possibility* for the EU's climate security discourse, thereby *demonstrating its contingency*. This will be achieved by accounting for how the discourse of climate security is pre-structured in significant ways by the discourses of human security, risk management, and international development

The second objective is to generate a greater understanding of *the role of neoliberal rationalities in securitization*. This is achieved through attentiveness to the political economics of security in two senses: first, the more conventional sense that prevailing North-South economic relations contribute to producing social structures like poverty, and therefore insecurity; second, that hegemonic political economic discourses (i.e., neoliberalism) help produce a common sense pertaining to underdevelopment, and then work through the security-development nexus to help construct security threats.

8

Before any attempt is made to pursue these objectives, this project will briefly outline the history of the concept of resilience in ecology, and its advance into the broad realm of the social-sciences and development policy.

1.4. Resilience: the Complexity of Nature

In the discipline of ecology during the early- and mid-20th century, the prevalent thinking and research on the behaviour of natural systems was "premised on the widespread assumption of progressive development of a biotic community" (Zebrowski, 2013: 163). Changes in the patterns of ecosystem behaviours were understood as expressions of a natural tendency for evolution toward states defined by deeper harmony and a more refined "balance of nature" (Walker and Cooper 145). As the internal processes of an ecosystem became more refined over time, the "[i]ncreased harmonisation of the whole [system] would absolve the need for further adaptation" (Zebrowski, 2013: 163). Natural systems were therefore said to follow a linear temporality, continually advancing toward a final mature state characterized by stable and enduring equilibrium and homeostasis.

This account of environmental behaviour and health directly informed policies for promoting ecosystem stability. Typical management efforts valued "maximum protection from perturbations" to help ensure that the system remained on its development path toward equilibrium. "Homeostasis" thus became "both nature's telos and a security project" (ibid. 165). An example of such approaches to resource management were the methods entailed in the framework of Maximum Sustained Yield (MSY), the objective of which was to maintain the quantities of a renewable resource at a constant value, or ensure that a vegetal or animal population's growth rate remained steady so that a surplus could be extracted without 'perturbing' the system (ibid. 166).

The long-standing 'equilibrium' paradigm in ecology, however, came to be challenged in the 1970s, initially through the work of an ecologist named Crawford Holling. In contrast to dominant assumptions regarding linearity, Holling rejected the theory that ecosystems are inherently inclined to "organize around a single equilibrium

point", suggesting instead that they were bounded by "critical thresholds" or tipping points that, when crossed, would irreversibly push the system into a qualitatively different state (ibid. 165). Although his theory was partly induced from empirical work and computer simulations, Holling drew crucial insights from the so-called 'complexity sciences', and in particular from the concept of 'complex adaptive systems.' Whereas ecosystems were traditionally said to operate mechanistically, with their end-states being pre-structured "by regional climatic variables such as temperature, rainfall, and wind" (ibid. 163), complex adaptive systems are viewed as dynamic and atelic "biological entities; a complex of multiple interacting agents…The system itself is *self-organizing, emergent* from those interactions, and *non-linear* in outcome" (Welsh 18; added emphases). In the environmental sciences, the concept of complex adaptive systems holds that the behaviours of ecosystems are not driven by fixed variables operating externally from those systems. Instead, the principle of emergence states that ecosystems endogenously constitute (rather than cause) *their own* behaviours and processes, contingent upon the interactions already at work within them. The principle of self-organization, in turn, proposes that the apparent fixedness of system behaviours is not produced by independent causal variables, but by feedback loops that continuously reproduce system structure. Through emergent self-organized feedback, alterations to the system at micro levels may result in novel dynamics at macro levels, which may influence the micro levels anew, and thus reproduce or change the system's behaviour through iterative adaptive cycles operating across different levels of the system (Folke et al. 16). The result is a non-linear development path that unfolds over time, the implication being that the ecosystem that prevails in a given geographic area is actually only one of a multiplicity of possible states that can change gradually or suddenly as the system comes to self-organize as a different structure.

The theoretical rejection of linearity was accompanied by another challenge to the prevailing paradigm that emphasized the value of *stability*. If it were possible that ecosystems did not in fact develop teleologically and could irreversibly shift from one state to another, then societies had to be most concerned with the *perpetuity* of ecosystems in their present configurations. With these considerations in mind, Holling argued that an ecosystem's health was determined not by how stable its quantities were, but by how capable it was of enduring disturbances that pushed it away from equilibrium.

It was thus that he introduced the concept of ecological *resilience*, which he understood as a property that "determines the persistence of relationships within a system and is a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters, *and still persist*" (Holling 17; added emphasis). Resilience, in other words, is not a measure of a system's ability to prophylactically defend itself against shocks and disturbances, but rather a measure of its capacity to sustain itself under stress conditions and still maintain the same form.

Resilience and complexity were not just theoretical curiosities for Holling, but realities with policy implications for modes of ecosystem management. The concern for stability, first of all, was based on a flawed premise because "a system can be very resilient and still fluctuate greatly, i.e. have low stability" (ibid.). Wide fluctuations were in fact evidence that a system was highly resilient in the face of disturbance, and was therefore in good health. More profound, however, was his insistence that efforts to eliminate disturbances in order to ensure stability could be harmful to environmental buffer capacities. Environmental disturbances such as fires, floods, and diseases were actually necessary for maintaining resilience because these events applied forms of stress that strengthened the system's adaptive capacities and fortified the prevailing self-organized feedbacks. Given that ecosystems are complex adaptive systems, they continuously metabolize the inputs and interventions made upon them, and these interventions are therefore liable to alter the conditions of a system's emergence by altering the intra-connections, processes, and feedbacks that govern system behaviour. By deploying measures that reduce the "natural levels of variation in system behaviour…through command-and-control resource management", resilience theory argued that planners could create a situation where "resilience is lost or reduced" (Holling and Meffe 328). An artificially stable system would be contained within an ever-narrowing set of critical thresholds, thus increasing the likelihood that "a chance and rare event that previously could be absorbed can trigger a sudden and dramatic change and loss of structural integrity of the system" (Holling 21).

It is on this basis that Holling criticized 'top-down' resource management frameworks such as MSY, which he saw as being disposed to "becom[ing] isolated from the managed system and inflexible in structure." This, in turn, would blind planners to the

ecological changes at play, thereby generating the conditions of possibility for a systemic shift, with adverse consequences for human societies that relied on that ecosystem state. Bureaucratic and state-led efforts to manage ecosystems, he argued, must therefore devolve their authority and mandate to "more flexible agencies, more self-reliant industries, and a more knowledgeable citizenry" (Holling and Meffe 328), as these stakeholders had the proximity required to effectively manage their environments. In contrast to the precepts of state-led defence and protection of ecosystems, resilience emphasizes the need to de-centralize the governance of ecosystems and *empower* actors operating at subsidiary levels.

Having set the theoretical ground for a paradigm shift in the environmental sciences and in natural resource management, Holling and his colleagues sought to extend their insights beyond the bounds of ecology, strictly defined. Among their primary ambitions was to infuse the social sciences with resilience-thinking, and thus inform an applied research and policy agenda concerned with the resilience of *social*-ecological systems. Key to the elaboration of this research agenda was complexity-thinking, which resilience researchers used as a way "to bridge social and biophysical sciences to understand, for example, climate, history and human action, assessments of regions at risk, syndromes of global change and how to link social and ecological systems for sustainability" (Folke et al. 10). Complexity-thinking was not merely a heuristic device for thinking about social systems in novel ways, but rather was used to make the literal argument that "[l]inked systems of people and nature,…technologies, and human activities, behave as a complex adaptive system" (ibid. 12). Complexity science therefore permitted researchers to conceptually bind nature and humanity into a unified social-ecological assemblage, and to understand the processes and inter-linkages that constitute "[n]ature and humanity as one system" (ibid. 21).

Resilience thinkers were thus equipped to apply their analytical tools to the study of *human* populations. Humanity`s newly 'discovered' complex ontology meant that societies were subject to the same imperatives imposed by dis-equilibrium, non-linearity, emergence, and self-organization. Ambitions to govern human societies were consequently subject to imperatives analogous to those for managing resilient ecosystems. Firstly, policy-makers had to dampen their commitment to ensuring stability

for human populations, and focus instead on fostering population capacities for enduring harms at varying degrees of intensity. Moreover, and in line with insights from ecology, disturbances were *not* detrimental to the development and well-being of human societies, but could actually render them more resilient. In a similar fashion to critiques of top-down forms of ecosystem management, policy-makers had to accept that "management that uses rigid control mechanisms to harden the condition of social-ecological systems can erode resilience and promote collapse" (ibid. 16). Over-protecting populations could inadvertently "disrupt social memory or remove mechanisms for creative, adaptive responses by people" (ibid. 8). Administrators therefore had to 'empower' communities by de-centralizing the loci of responses, allowing the space for local knowledge and agency to have a more prominent role in adapting and self-organizing in the face of disturbances, and even crises (ibid. 19-20).

1.5. Research Project Overview

The remainder of this project is divided into five chapters. Chapter 2 reviews two streams of literature relevant to this project. It first looks at research on the notion of climate security, contrasting theoretically- and empirically-oriented scholarship on the question of climate change as a security threat. While agreeing with arguments that climate security is characterized primarily by non-adversarial measures, I suggest that these 'non-adversarial measures' are in fact inherited from antecedent security practices that tend to be overlooked in much of the Security Studies literature. The second part of the literature review looks at research on the prominence of resilience discourse in security politics, and the role of neoliberalism therein. Chapter 3 lays out the project's analytical and conceptual frameworks, which draw from the Paris School of Security Studies and from Foucault's concept of biopolitics, respectively. Chapter 4 examines resilience and development in EU climate security discourse, paying attention to the way in which development professionals prime the resilience discourse for uptake into the security-development nexus. Chapter 5 examines the EU's resilience programming in international development, focusing on EU objectives as well as the practices of civil society organizations partnered with EU development agencies. Chapter 6 concludes the project.

Chapter 2.   Literature Review

2.1. Climate Security: a New Logic of Security?

Within most mainstream research of Security Studies, a long-standing assumption is that national and international security is invariably pursued through militarized, violent, or otherwise repressive means. This assumption has, in turn, played a strong role in structuring much of the research within the academic community. In the context of the climate security literature, however, these assumptions have come to be challenged by authors who argue that climate security politics are novel in their tendency to instantiate more 'humanitarian' forms of security politics. This project agrees with the empirical claim that climate security politics, by-and-large, appear to have unfolded on the basis of non-extraordinary and non-repressive measures. This section of the literature review, however, contends that both the 'repressive' 'non-repressive' theses on climate security overlook the wide variety of practices that have long been undertaken in the name of security more generally. This has implications for studying the securitization of climate change specifically.

An argument typical of realist scholarship on climate change is that future ecological changes, and their effects on the availability and condition of natural resources, will cause armed interstate conflict. Gleick, for example, hypothesized that diminished global grain production due to climate change could heighten tensions between the Cold War superpowers, as each sought to ensure greater control over supply and surplus (311). For others, interstate war in a changing climate may also be driven by competition over increasingly abundant resources. Murray (2012), for example, argued that a relative decline in US power, coupled with expanding access to oil, gas, and fish stocks in the melting Arctic, may result in armed action to secure these resources.

In contrast to the realist view, scholars taking a constructivist approach have resisted the idea that environmental destruction and climate change are inherent security threats. Attempts to frame climate change in such a way, however, may help constitute that very same reality. In a well-cited article, Deudney (1990) warned against activism that framed ecological destruction in security terms because even if doing so could help endow the issue with a measure of urgency, doing so could increase the risk that "other, less benign, associations may be transferred" (ibid. 466), namely parochial nationalist and militaristic connotations and measures (also see Gleditsch; Feteilson, Tamimi, and Rosenthal). Saleyhan (2008) goes further by arguing that even in cases where there is evidence that climate change-induced ecological decline will increase the risk of violent conflict, the representation of research and objective data is never a neutral act. Rather, the way that 'objective' evidence is framed and disseminated may have a constitutive effect on the ways in which policy-makers and protagonist groups choose to deal with the problem of intensified climate hardships

To be sure, these analyses – both realist and constructivist – are theoretical in nature, and therefore limited because they do not address whether or not climate security issues have in fact manifested in global politics. Numerous authors informed by a Critical Security Studies perspective, in contrast, have attempted to empirically assess whether climate security rhetoric has actually produced adversarial relations. In attempting to do so, these authors have maintained the assumption that climate security measures would take militarized, violent, or repressive forms. For instance, Hayes' and Knox-Hayes' (2014) draw from the Copenhagen School's "securitization" framework to conduct a comparative discourse analysis of US and EU climate security politics.[3] Despite the existence of some 'securitizing' rhetoric in the US case, their research

---

[3] The Copenhagen School is informed by post-structural linguistic theory. It argues that communicative acts do not merely refer to objects and phenomena existing naturally in the world. Rather, communication has a constitutive effect on reality. Security issues are incited through 'speech acts' that identify an existential threat (Buzan et al. 21). If this securitizing speech act is accepted by a relevant audience, it creates the intersubjectivities allowing an issue to be constructed as a security problem. Securitization has succeeded when the speech act, coupled with the acceptance of the audience, generates a condition where "extraordinary measures" can be justified in order to suppress a threat (CASE Collective 43). Extraordinary measures operate outside the realm of normal democratic or deliberative politics, enabling actions that would normally be proscribed.

demonstrates the absence of extraordinary measures, suggesting that climate change had not been securitized in these cases. McDonald's (2012) Copenhagen School analysis of Australian climate security politics produced similar findings as Hayes and Knox-Hayes. Australian politicians, he argues, attempted to securitize climate change and were relatively successful in persuading large portions of Australian society of the threats it posed to the country's security. However, this did not result in even "mainstream" climate change countermeasures, such as an emissions trading scheme or significant increases in investment in renewable energy. McDonald therefore argues that, from the Copenhagen School's perspective, the Australian case demonstrates a "failed securitization" of climate change.

Other authors, however, have argued that the absence of extraordinary measures in the domain of climate politics does not indicate a 'failed securitization' so much as a reconfiguration of security practices. Brauch, for example, argues that climate securitization "challenges the prevailing Hobbesian security thinking in international relations" (66). Rather than being preoccupied with conflict and war, political leaders turn instead to the creative efforts of engineers and policy-makers tasked with transforming the energy and transport sectors in the name of security (ibid. 101-102). Methmann and Rothe also argue that the securitization of climate change has not mobilized the repressive apparatuses of the state, as most realist and critical security scholars would usually expect. Instead of seeking to destroy or repel adversaries, the resultant measures have harnessed the "routine and micro-practices of risk management" (337), predicated on the beneficent commitments of the "pastoral" state.[4]

For other authors, climate security has worked not only to qualitatively shift the nature of security measures, but also to broaden the field of relevant security actors. Trombetta argues that "appeals to climate change have avoided the identification of

---

[4] In Foucault's (1982) formulation, "pastoral" power refers to a form of governance, exercised initially by the pre-modern Church, which is "salvation oriented." It is a form of power that does not seek to repress the community or the individual, but is concerned with people`s spiritual welfare. Foucault explains how, during the 18th century, the modern state captured the pastoral function from the ecclesiastical class and secularized it in the process. In doing so, the objectives of pastoral power became people's the worldly welfare in terms of, for example, health, nutrition, and insurance against accidents.

enemies and involved actors other than states, both in the securitizing moves and in the security provisions." In enabling this broader field of actors, climate securitization is novel in its ability to "reorient security logics and practices" away from adversarial and zero-sum thinking, such that security comes to focus on positive-sum measures pertaining to adaptation and the satisfaction of human needs (598). The perspective of climate security as a field populated by non-state actors and non-violent measures is also echoed by Garcia, who argues that framing climate change as a security threat has in fact worked to empower the "globalized private sector and local governments, which will provide the investment, the science, and the action needed to deal with the problem [of climate change threats]." This dynamic is "contributing to a fundamental redefinition of security in the twenty-first century, away from territorial and narrowly defined national security provided by the military" (289).

Renditions of this argument have been made in analyses of the EU in particular. For instance, De Brito argues that "[i]nstead of resulting in the adoption of traditional [i.e., militarized] security measures, the securitization of climate change has so far reinforced the urgency of environmental measures", thus "contributing to a transformation in security practices" (130). For Zwolski, the EU's securitization of climate change marks the maturation of a "comprehensive" or "holistic approach" to security, which includes international development and risk management among its pillars (2012; also see Zwolski and Kaunert).

The prevailing assumption underpinning these claims is that the unfurling of non-repressive security measures in the context of climate change is something unique to, or at least instigated by, discourses of climate security. This claim, however, neglects the fact that national and international security has long been pursued through 'non-repressive' and even philanthropic practices. Perhaps the most illustrative example of this is the discourse and practice of international development which, in its contemporary form, has been profoundly shaped Western states' historical efforts to contain the Soviet Union (Busumtwi-Sam). More recently, renewed interest in economic and human development in Afghanistan, Iraq, and other developing states did not simply serve as a fig leaf for Western intervention and counterinsurgency in those countries; instead,

international development in the post-9/11 period was pivotal to many coalition members' visions for how their own security was to be assured (Duffield, 2007).

A research agenda for the securitization of climate change, then, necessitates attentiveness to a greater diversity of security practices than is often acknowledged in much of the positivist and critical literatures on security. It also requires sensitivity to both continuity and change in the security field, acknowledging that novel security discourses do not emerge spontaneously, but are constituted on the basis of antecedent discursive configurations that operate as a securitization's conditions of possibility.

2.2. Resilience, Security, Neoliberalism

The argument that climate security is characterized by non-extraordinary measures provides a useful lens to explore another repeated claim, which is that in the context of the worsening global ecological crisis, traditional conceptions of security are being increasingly displaced by the need for resilience. This is because practices for promoting resilience do not operate on the basis of repressive emergency measures that are typically assumed of security, but rather through development and risk management. Development and risk management undertaken in the name of resilience, moreover, are discursively shaped by core liberal ideals of 'empowerment' and 'capacity building.' Rather than manifesting as bellicose measures, resilience maintains beneficent commitments to populations' well-being and capacities for climate adaptation. But how is it that resilience is experiencing increased prominence in the field of climate security? And what might this reveal about contemporary trajectories of securitization?[5]

In beginning to address these questions, Methmann and Oels argue that resilience is taken up into the climate security field because of a "changed construction

---

[5] Section 2.2 draws from an active and growing theoretical literature examining the emergence and operations of resilience within discourse, policy, and practice. Much of this literature utilizes Foucauldian discourse analysis and writings on governmentality. To locate more publications from this body of literature, see the journal *Resilience: International Policies, Practices and Discourses* published by Taylor and Francis. Also see a the February 2015 special issue on "Resilience and (In)security: Practices, Subjects, Temporalities" in *Security Dialogue*, published by Sage Journals.

of environmental dangers" that draws from complexity theory (52). Scientists and policy-makers are made increasingly aware that "the climate is a non-linear complex system with tipping points that could lead to the sudden death of the Amazon rainforest or the breakdown of the Gulf Stream. Because increasingly it appears impossible to define safe thresholds for greenhouse gas concentrations in the atmosphere, a new strategy of governing climate change seeks to render at-risk populations resilient to the effects of climate change" (ibid.). In other words, climate change generates such radical forms of uncertainty, contingency, and risk, that certain populations can only cope through acts of self-transformation that render them capable of absorbing the shocks and disturbances to which they are increasingly subject. Building climate resilience, then, is a way for populations to adapt to climate change through acceptable patterns of migration despite, or even because of, the prospect of "sudden, irreversible and unpredictable changes in the global system" (ibid.).

Although Methmann and Oels provide a valuable empirical account of the workings of resilience in climate politics, their argument is weakened by their conception of resilience as a rational and logical reaction to the discovery that the climate is a complex adaptive system that must be dealt with as such. Because policy decisions can always be understood, retrospectively, as rational reactions to given problems, this begs the question of why a resilience approach is favoured. Zebrowski's study (2009) on the UK's Civil Contingencies Secretariat offers a partial theoretical corrective by foregrounding the ways in which resilience is incorporated into security practices in the wake of novel conceptions of human societies. In contrast to Methmann and Oels, his account of resilience in securitization focuses on shifting problematizations of the referent object of security (the thing to be secured), rather than its referent subject (the thing that threatens). Specifically, he points to the rise of understandings of contemporary "network societies", which are entities comprising intricate webs formed by economics, business, information technology, and critical infrastructure. Enfolding this new understanding are tropes that problematize the network society through "discourses surrounding the 'life properties' displayed by complex systems" (ibid. 7). As complex adaptive systems with latent capacities for resilience, network societies must nurture their own ability to absorb and adapt to disturbance and change – a process involving degrees of exposure to those self-same disturbances. Efforts to secure human societies,

then, are informed by newfound understandings of humanity's complex ontology. Zebrowski's insights allow analysts to overturn the common assumption that security measures naturally follow from an assessment of pre-existing threats. Instead, he offers the alternative argument that the turn to resilience "has less to do with the changing nature of threats in the contemporary security environment, and more to do with the changing organizational structure of life within advanced liberal societies" (ibid. 5).[6]

Although Zebrowski bypasses the simplistic preoccupation with threats, his argument does not completely escape the positivist frame of reference. His study can still be read as one where policy actors rationally respond to the imperatives posed by the nature of the referents of security, with the difference being that he replaces analysis of security threats themselves with a focus on what is to be secured. It may certainly be the case that the rise of resilience strategies follows directly from the elaboration of complexity understandings of human societies, but his study offers few insights into how it is that complexity is accepted as a truthful account of human ontology in the first place. To this question, Walker and Cooper (2011), and Zebrowski himself in a later publication (2013), offer an answer by arguing that neoliberalism's hegemony in contemporary society permits the uptake of resilience into mainstream governance agendas. Neoliberal thought, they argue, is highly receptive to resilience because they each formulate analogous diagnostics and prescriptions in their respective fields.

This is no accident, given that neoliberalism and resilience share a common genealogical heritage in complexity science. The indebtedness of resilience to complexity science has already been shown in the introductory chapter. In economics, the complexity-turn was initiated by Friedrich von Hayek (a precursor of neoliberalism) during the 1970s and 1980s, who conceived of markets as complex systems that imposed epistemic limits on the degree to which 'central planners' could achieve "state-engineered equilibria" through Keynesian command-and-control measures (Walker and Cooper 149). Specifically, he foregrounded the inestimable contingencies inherent to

---

[6] Zebrowski's argument should not be taken to be that governments conceive only of advanced liberal societies as being endowed with a complex ontology and in need of resilience. Much of the social-ecological resilience literature has focused on the implications of the operations of complex adaptive socio-ecological systems for the global poor (for example, see Folke et al.).

markets, and argued that decision-makers did not have the tools to reliably steer them (ibid. 148; Zebrowski, 2013: 169). For Hayek, 'top-down' efforts to control economic processes were not only infeasible, but also potentially injurious to livelihoods and to the state. Much like how the over-management of ecosystems led to short-term gains at the expense of long-term resilience, state-led interventionism would have a "debilitating effect on the ability of the underlying economic system to adjust to misallocations in labour and capital" (Zebrowski, 2013: 168). A complexity understanding of economics therefore aligns with (and indeed informs) the neoliberal imperative to curb state interventionism, while resonating with the resilience approach calling for the state's withdrawal from the direct management of the social-ecological world.

To be sure, neoliberalism takes strong cues not only from complexity theory, but from traditional liberal economics prescribing *laissez-faire* policies. However, in contrast to older liberal economics (and the Chicago School neoliberals), Hayek's complexity theory of economics submitted that "[p]erturbations of greater or lesser force are not only inevitable; they are also necessary to the creativity of organized complexity" (Walker and Cooper 150).[7] Contemporary neoliberalism resonates with resilience, in other words, because of the mutual embrace of governance through disturbance. Resilience, then, succeeds and proliferates in policy because of its "intuitive ideological fit with a neoliberal philosophy of complex adaptive systems" (ibid. 144; also see Joseph, 2013).

In seeking to account for the widening deployment of resilience thinking in various policy areas, Zebrowski and Walker and Cooper offer a clear alternative to foundational and rationalist arguments, which argue that the resilience-turn is a natural and necessary response to problems that exist 'out there.' However, although they offer a theoretically robust and highly plausible argument, illustrated through examples, their

---

[7] Walker and Cooper are careful to point out that it is neoliberalism's equilibrium-informed Chicago School, rather than Hayek's complexity-informed Austrian School, which has had a greater influence in shaping the mainstream of neoliberal thought and policy. However, they also insist that it would be a mistake to "dismiss Hayek's late philosophy as an intellectually interesting but politically inconsequential episode in the convoluted history of neoliberal economic thought" (150). They discuss how complex systems theory has developed a series of practical methodologies that, since the mid-2000s, have allowed it to be embraced by mainstream financial institutions such as the Federal Reserve Bank of New York, the Bank of England, and numerous think-tanks.

conclusions remain conjectural because their research assumes, rather than shows, that neoliberalism is a powerful ideological framework at play in various policy fields. Taken on their own, their arguments are also somewhat limited for the purpose of this project because they do not offer insights into the ways that neoliberal frameworks do or do not play out in the field of climate management specifically.

In an earlier study, Oels (2005) fills this gap by illustrating that changes in the dominant approaches to global governance do indeed shape dominant ways of managing climate change and its effects. She maps climate management efforts onto a shift away from a rationality of 'biopower' and toward 'advanced liberal government' as a general approach influencing governance in numerous sectors. Whereas ecological problems were classically addressed primarily through centrally-coordinated "techno-scientific management" (ibid. 195) to control pollution and repair damage to the ecological systems, advanced liberal government "introduces the market as organizing principle for all types of social organization including the state…[and] employs market forces to guarantee freedom from excessive state intervention and bureaucracy" (ibid. 191). This claim corroborates repeated findings within the so-called "neoliberal natures" (Bakker) literature, which is broadly interested in the proliferation of market-based approaches to environmental preservation through, *inter alia*, the marketization of ecosystem services (Gomez-Baggethun and Ruiz-Perez) and the creation of pollution markets (Robertson; Shortle and Horan), including but not limited to the carbon emissions trading sector (Bailey and Maresh).

This research thereby complements the arguments made by Zebrowski and Walker and Cooper. Whereas the latter authors argue that resilience flourishes on the ideological terrain of neoliberalism, Oels and numerous neoliberal natures academics confirm that neoliberal thinking has indeed become a powerful influence shaping climate governance efforts. This, in turn, opens up opportunities for novel contributions to the Critical Security Studies literature, namely an exploration neoliberalism's contemporary role in securitization. If it is indeed true that "resilience is becoming the dominant mode of securing in the face of environmental dangers" (Methmann and Oels 52), then it becomes important to understand the role that neoliberal thought plays in facilitating this.

Chapter 3. Analytical and Conceptual Frameworks, and Methodology

3.1. Analytical Framework: the Paris School

Whereas the most influential analytical framework within critical security studies has been the Copenhagen School, this project follows Oels (2012) suggestion that the analytical perspective of the Paris School is the most fruitful for studying the securitization of climate change. Both the Copenhagen and Paris schools are rooted in critical theory, and therefore conceive of (in)security as a social construction constituted through acts of interpretation. The main difference between the schools is their diverging accounts of the processes by which an issue becomes constructed as such.

The Copenhagen School is heavily informed by post-structuralism and, more specifically, by Austinian speech act theory, which argues that communicative acts do not merely refer to objects and phenomena existing naturally in the world. Rather, communication is "performative", meaning that it has a constitutive effect on reality. Security threats can be 'performed' through a speech act that identifies an "existential threat to a designated referent object" (Buzan et al. 21). To the extent that a securitizing speech act is accepted by a relevant audience, it creates the intersubjectivities allowing an issue to be constructed as a security problem. Securitization has succeeded when the speech act, coupled with the acceptance of the audience, generates a condition where "extraordinary measures" can be justified in order to suppress a threat (CASE Collective 43). Extraordinary or emergency measures operate outside the realm of normal democratic or deliberative politics, enabling authorities to pursue actions that would normally be proscribed.

The Paris School is informed by a sociological perspective, and draws heavily from the writings of Michel Foucault and Pierre Bourdieu. Three concepts are central to Paris School analyses: practices, the 'field of security professionals', and dispositif.

First, in contrast to the Copenhagen School's near-exclusive focus on linguistics and performative speech, the Paris School argues that securitizing processes also inhere in everyday practices for managing and governing security risks – practices which have a constitutive effect on social realities. Practices can be defined as "socially meaningful patterns of action which, in being performed more or less competently, simultaneously embody, act out, *and possibly reify background knowledge and discourse in and on the material world*" (Adler and Pouliot quoted in Cornut 4; added emphasis). According to the Paris School, security practices "often precede and pre-structure political framings in significant ways. They are not just deployed in response to a political decision but often already exist in one form or another within professional routines and institutional technology" (Huysmans 8). Furthermore, security practices change not only or primarily in response to the emergence of threats or to evolutions in forms of violence, but "evolve over time according to professional and bureaucratic or institutional requirements – such as the need to innovate" (ibid.).[8] This means that security practices cannot simply be instrumentalized to deal with a threat; instead, they have a constitutive effect on how security threats are rendered thinkable and speakable for political elites and others (McDonald, 2008: 569).

Furthermore, and in contrast to the Copenhagen school's restrictive analysis of security as emergency measures operating beyond 'normal' politics, the Paris School argues that security practices may be un-extraordinary, entailing "mundane" efforts to screen and surveille, classify individuals and groups, and gather data or generate statistics (McDonald, 2008: 570) in the service of a "governmentality of unease" (Bigo, 2002). This means that security measures are not limited to states of exception that suspend 'normal' political order so as to restore it at a later time, but rather also

[8] Bigo offers a different but complementary argument, which is that evolutions in violence introduce "perturbations inside the positions of the security game" (2006: 391). These perturbations create windows of opportunity for altered constructions of threat; however, the shape that novel securitizations will actually take is determined by pre-existing practices and is an outcome of the institutional games played by a network of agencies.

encompass quotidian acts that visit injustices and forms of violence on certain groups in constructing them as security risks.

Second, in contrast to the Copenhagen School's emphasis on elite prerogative, the Paris School maintains that security practices are enacted by 'security professionals', which include bureaucrats and non-elites. Paris School scholars have most commonly analyzed the practices of police and military forces, customs agents and border guards, and surveillance and intelligence agencies. Oels, however, argues that the field of climate security is inhabited by "climate change professionals with their practices of risk management, climate modelling, etc.", who contribute to "transforming the [climate] security field and its practices" (2012: 191). Accordingly, this project will take account of how resilience is constructed as an answer to climate vulnerabilities by risk managers and development agencies involved in resilience-building.

Third, the Paris School uses Foucault's concept of "dispositif", which is defined as "a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions…The dispositif itself is the system of relations that can be established between these elements" (Foucault quoted in Balzacq et al. 3). In essence, the dispositif permits analysts to apprehend the connections between seemingly unconnected practices (Herschinger 186). For example, Aradau and van Munster, in their study on the role of risk management in the War on Terror, have used the concept of dispositif to "locate developments as diverse as the wars in Afghanistan and Iraq, the targeting of Muslim communities by counter-terrorism measures or indefinite detention of suspect terrorists in the UK as elements of precautionary governance through risk" (91). In a sense, the dispositif conducts the orchestra. My research project will be attentive to how, in the name of fostering resilience, the neoliberal dispositif constitutes a system of relations drawing together various discourses and practices constituting climate security understandings and measures, including: humanitarianism, development, climate science, risk calculation and management, population management, and climate disaster early warning systems.

Finally, this research project will make use of Foucault's concept of biopolitics, understood as a set of rationalities and techniques seeking to identify – and to govern and change – certain social, cultural, demographic, or other 'problem traits' characteristic of a population. Duffield (2007) has notably used the concept of biopolitics as a way to understand the logics of the human security discourse, development, and risk management in relation to international security policy frameworks. Biopolitics is a useful concept because it offers a way to conceptually organize the various antecedent security discourses and sets of practices that now inform EU institutions' and agencies' notion of climate security threats. This project now turns to a fuller explanation of biopolitics and its relevance to the study of international security.

3.2. Conceptual Framework: Biopolitics

3.2.1. From Subjects to Populations

A longstanding tradition in Political Science conceives of power as essentially repressive (Oels, 2005: 190). Power, in this formulation, is understood as functionally underpinned by the capacity to use physical force to dominate and ensure compliance. Such conceptions of power resonate with theories of 'sovereignty', elaborated over previous centuries, which broadly state that a "sovereign exercised his right of life only by exercising his right to kill, or by refraining from killing; he evidenced his power over life only through the death he was capable of requiring" (Foucault, 1990: 136).

In lamenting that modern-day academic political thought has not, in many cases, "cut off the head of the king" (ibid. 89), Foucault highlights the gap between prevailing philosophies on power's nature, and the ways in which modern rule operates in practice. It is thus that he introduces the term 'governmentality.' Governmentality refers to a broad approach to governing that European authorities began to employ during the 16th century. Rather than commanding or coercing, governmentality`s end is the "conduct of conduct" (Dean, 2010: 17-18), entailing deliberative attempts to structure and produce rational action. Shaping rationality, for Foucault, is not only about manipulating structural incentives such that subjects make cerebral decisions to satisfy exogenous interests. Rather, it involves the "shap[ing] of conduct by working through the desires, aspirations,

interests and beliefs of various actors" (ibid. 18). A governmentality perspective thus allows analysts to theorize power as something productive, rather than as something that opposes freedom by violent or forceful means.

Governmentality encompasses different strategies for the shaping of conduct. For instance, late 17th century administrators developed a form of governmentality which Foucault termed 'discipline' whereby, alongside a citizen's life as a juridical subject of the law, he also became the subject of a network of pedagogical, clinical, industrial, and carceral institutions making systematic use "of surveillance, hierarchies, inspections, bookkeeping, and reports" (Foucault, 2003: 242). Such techniques work to govern individuals 'at a distance', or indirectly by guiding them to internalize a suite of scientifically- or pseudo-scientifically-determined standards of behaviour. As people learned to conduct themselves according to codified norms, modern states could govern more effectively without intensifying their sovereign force.

Governmentality is not the same as liberalism, and in fact predates it. But as a perspective that sees freedom as generative of well-being, and seeks to foster that freedom, liberalism has relied on and contributed to the elaboration of governmentalities. This should not be taken to mean that liberal governance simply steps back from individuals and lets them be. Liberal governmentality is in fact a more intensive form of governance, as it actively "shapes the field of action and thus, in this sense, attempts to *shape freedom*" (Dean, 2010: 21; added emphasis; also see Rose). Free and rational subjects, in other words, do not exist 'in nature', but must be actively produced.[9]

For Foucault, it is not by chance that governmentality increased in sophistication at the same time that liberalism emerged in the 18th century as a dominant philosophy predicated on the market's injunction to *laissez-faire*. This burgeoning ideology that

---

[9] It should be acknowledged that the use of a Foucauldian perspective comes with the risk of too easily dismissing individual agency as entirely socially constructed. The governmentality perspective may be legitimately critiqued for its disinclination to engage with the question of what a genuine form of human freedom may look like. Indeed, this limitation of the governmentality perspective may be seen as the mirror image of an overly-eager faith in a Cartesian perspective that views individuals as divinely- or naturally-endowed with a universal form of reason, rather than as situated within discursive and ideational structures. It is beyond the scope of this project to resolve this.

called on state administrators to abandon "the obsessive fantasy of a totally administered state" (Rose 289)[10], coupled with the dramatic economic and demographic transformations of 18th century Europe, set the stage for the emergence of a novel form of governmentality, which Foucault termed 'biopolitics.' Biopolitical rule became possible when "[g]overnments perceived that they were not dealing simply with subjects, or even with a 'people', but with a '*population'* with its specific phenomena and its peculiar variables: birth and death rates, life expectancy, fertility, state of health, frequency of illness, patterns of diet and habitation" (Foucault, 1990: 135; added emphasis). The elaboration of statistical techniques for knowing populations, coupled to the application of the twin notions of probability and risk, made such phenomena visible and calculable, revealing regularities and correlations between the non-human and the built environments on one hand, and the "movements of life" that characterize population trends on the other (ibid. 25).

Foucault argued that sovereign power finds its limits when confronted with a population because population dynamics are "phenomen[a] that cannot be changed by decree" (2009: 100). Biopolitical rationality finds that society is shot through with 'natural' processes operating outside the sphere of politics, classically conceived. For liberalism, the horizons of governance are not simply determined by the rights with which individuals are naturally endowed and which states must guarantee. Rather, it is conditioned by the liberal notion that the "objects, instruments and tasks of rule must be reformulated with reference to [the] domains of market, civil society and citizenship" (ibid. 291). Accordingly, biopolitical practice operates by manipulating variables surrounding the populace, stimulating movement and change without commanding anyone in particular. Agencies that govern biopolitcally target a milieu – that is, a nexus between population and environment. This means that biopolitical practice conceives population traits as a "natural-cultural reality" (Villadsen and Wahlberg 4) and tries to resolve the dynamic "problem of the environment to the extent that it is not a natural environment, [but rather] that it has been created by the population and therefore has

---

[10] As Rose (1993) recounts of Foucault's research, eighteenth-century European societies were governed according to the principle of "police", which meant the concerted efforts of authorities to specify, enumerate, and document the most minute and varied details of citizens' life related to sumptuary matters, habitation, cursing, manners, consumption, and so forth.

effects on that population" (Foucault, 2003: 245). Changing the milieu entails addressing 'natural' phenomena such as disease or hunger not only at the raw biophysical level, but also at the level of its sociological constitution. This may involve, for example, addressing the health impacts of concentrating many people in a town, or the economic impacts of regulating commodity prices. Biopolitical practice might aspire to manage disease and morbidity autonomously by designing the town a certain way, or to mitigate the effects of famines by generating enabling environments that facilitate migration or the reorientation of patterns of regional production, with people in the target population acting on their own accord and effectively being governed through their own freedom.[11]

3.2.2.   The Liberal Analytics of Security: It's Smart to be Biopolitical

Although Foucault researched biopolitics in the context of the domestic politics of modern European societies, the rationales and techniques that animate biopolitical governance have also pervaded rationales and programs in the realm of international affairs (Duffield, 2006: 14-17). This is the case, not least, in the twin realms of international development and international security. This section offers a biopolitical account of securitized development practices.

To be sure, inter-state war has traditionally been the primary guiding reference in the academic discipline of International Relations (IR), and in its sub-discipline Security Studies. Because war was the main concern, academic Security Studies preoccupied itself with studying "*the threat, use, and control of military forces*" as well as with statecraft: namely, "arms control, diplomacy, [and] crisis management" (Walt 212-213; original emphasis). The state-centered focus on defending territorial boundaries and managing the nuclear standoff dovetailed with the adage popularized in American academic security establishments during the Cold War, which stated that if one is to promote security, then "[i]t's smart to be geopolitical" (Strausz Hupé quoted in Crampton

---

[11] This project utilizes the concept of biopolitics as an analytical concept to unpack the rationalities and workings of international development in the name of climate resilience. Despite strong empirical evidence that biopolitical practice has been pervasive throughout the modern era (Dean, 2010), it should not be assumed that biopolitical practice utterly encompasses human life and association as "a particular global form of power" (Corry, 2014: 256).

and Tuathail 539). The focus on the military balance of power (for example, see Mearsheimer) within neorealist IR, furthermore, reveals its indebtedness to conceptions of power organized around the principle of sovereignty (Methmann and Oels 53).

However, the mainstream academic emphasis on military power and statecraft arbitrarily overlooks many active strategies that world powers have pursued in the name of international security for well over half a century. For instance, mid-20th century security practices were deeply informed by biopolitical rationalities and manifested as development practices. For Bell, international security becomes biopolitical when "the business of managing affairs of state is channelled through mechanisms of national security in the name of protecting biological life." This entails "identifying and neutralizing 'problems' within the population in order to render the state or the world more secure" (2006: 151). To illustrate, Dean discusses the US' experience during the Cold War, where American policy-makers sought to address the perceived causal relationship between overpopulation and poverty in the Third World. Poverty was seen as a national security issue insofar as it rendered erstwhile third world regimes susceptible to domestic communist insurrections, making them liable to fall under Soviet influence (2015: 29-30). Anderson similarly recounts the motivations of US-led agricultural development programs in South and Southeast Asia, where underdevelopment and low quantities of food production were said to be "causing dissatisfied peasants, students facing unemployment, and underpaid urban workers to listen to the protagonists for communist movements and parties throughout Asia" (62; also see Chandler, 2012). In consequence, the US, in concert with a host of philanthropic organizations, mobilized international development interventions related to family planning and agronomics.

The relative decline in concerns over state-centered threats at the Cold War's end did not result in the resolution of insecurity. Through the concept of human security, numerous governments, the UN, and the academic community have defined qualitatively new security threats on the basis of biopolitical rationales, while also inheriting the notion that Southern underdevelopment constitutes a threat to Northern states. The human security discourse relies on the older conceptual register of inter-state war in order to posit itself in non-military security terms. Duffield reads the human security discourse as one conceiving a "world in which the geopolitical concerns of Northern states have been

overlaid with a more diffuse and multiform threat associated with alienation, breakdown and insurgency emanating from the nominal populations of Southern states" (2007: 112). For instance, the seminal 1994 UN Human Development Report articulates "disease, hunger, unemployment, crime, social conflict, political aggression and environmental hazards" as security issues by invoking – and juxtaposing them to – the then-more familiar problem of states' "territorial or external aggression" (UNDP 22).

The human security discourse speaks to what threatens the world today, but also addresses what is threatened. While influential reports on the concept of human security invariably emphasize the welfare of people in the developing world, the Global North also consistently features as the referent object of human security. The 1994 UN Human Development Report insists that transnational and non-territorial human security issues are a security threat to developed countries in a globalized context where "no nation can isolate itself from the rest of the world" (ibid. 34).[12] This perspective is also expressed in the Study Group on Europe's Security Capabilities report," A Human Security Doctrine for Europe", which states that in contrast to traditional state-centered threats which could, in principle, be geographically contained, such an approach to fostering Europe's security "is no longer realistic in a world characterized by global interconnectedness" (Albrecht et al. 2). It is, then, not only on account of militarized threats that world peace is now endangered. Instead, the discourse of human security aids policy-makers in envisioning a world jeopardized by Southern instability impinging on the residents of metropolitan states and on the integrity of the "global circulation" of goods, people, ideas, and identities (Oels, 2012: 197).

Measures to protect Northern states from human security threats vary, and may include sovereign, emergency, or repressive measures, for example tracking and

---

[12] Following Duffield and Waddell, Oels (2012: 197) argues that this particular rendition of human security was further re-enforced after September 11th. Indeed, influential documents that succeeded the 1994 Human Development Report continued to express, rather consistently, that human security was a concern for the security of "homeland populations" of the Global North. For instance, the International Commission on Intervention and State Sovereignty's famous report, The Responsibility to Protect, argues that "[i]n an interdependent world,…the existence of fragile states, failing states, states who through weakness or ill-will harbour those dangerous to others, or states that can only maintain internal order by means of gross human rights violations, *can constitute a risk to people everywhere*" (ICISS 5; added emphasis).

intercepting refugee-laden boats, or quarantining Ebola victims. In other cases, human security marks a site where biopolitical measures are applied. This is done to intervene in the orderings of people's daily lives so as to change dynamic social, economic, cultural, and social-environmental relations that constitute a population and its milieu, with the aim of promoting the population's well-being. Richmond Oliver thus argues that in addition to erecting disciplined and effective formal government institutions that can provide basic safety and justice, interventions carried out in the name of human security have sought to cultivate 'appropriate' forms of agency that contribute to beneficial dynamics at the level of communities. This, he argues, cannot be achieved through the enforcement of law, no matter how powerful the formal institutions are, but has instead been pursued through subtler developmentalized interventions "into the deeper reaches of societal organization and human needs" (460-464). Duffield similarly recounts how intangible "non-material" interventions under the banner of sustainable development aspire to change the behaviour, attitudes, and preferences of Southern peoples in order to foster processes that promote health, education, and market access (2001; 2005: 152). In the manner of governmentality, this amounts to structuring people's agency and disposing them to exercise their freedom in particular ways. In contrast to the Cold War preoccupation with the territorial threat of powerful states, such efforts are carried out in the name of defending against transnational human security threats, including pandemics and terrorism, associated with failed and fragile states.

3.2.3.   Rationale for Using a Biopolitical Analysis

The preceding section illustrated the usefulness of the concept of biopolitics for understanding the logic of international development and how this has been securitized by states and the UN. There is an additional reason for this project's use of the concept of biopolitics, which is that doing so makes it possible to philosophically and theoretically situate resilience practice in relation to liberal rationalities of rule, which dominate contemporary approaches to international development and governance (Reid, 2010; 2013). In doing this, I am able to gain a firmer sense of neoliberalism's contemporary role in the social construction of security threats by better grasping how the logics of the security-development nexus are fed through particular notions of what international development in the name of resilience should be.

An idea central to the genesis and contemporary operation of biopolitics is that it is necessary to govern in a way that accords with the governed object's nature, rather than by illiberally and restrictively imposing a sovereign's will. The ends and means of biopolitical governance are not determined on the basis of an appeal to divine injunction or an arbitrary first principle. Instead, "the norm" that defines the parameters for what and how one should govern "is an interplay of differential normalities. The normal comes first and the norm is deduced from it, or the norm is fixed and plays its operational role on the basis of this study of normalities" (Foucault, 2009: 91). Put differently, it is with reference to knowledge of an imminent nature that authorities and experts must determine their ambitions and methods.

While this perspective is, today, so ingrained as to seem self-evident, Foucault, and Foucauldian authors have endeavoured to historicize it. For Rose, the advent of liberalism was fed in part by a dawning appreciation that:

> "rule must be exercised in the light of a knowledge of that which is to be ruled – a child a family, an economy, a community – a knowledge both of its general laws of functioning (supply and demand, social solidarity), of its particular state at any one time (rate of productivity, rate of suicide), and of the ways in which it can be shaped and guided in order to produce desirable objectives whilst at the same time respecting its autonomy" (Rose 290).

As one form of governmentality, or governmental rationality, biopolitics is historically linked to liberalism's overarching prescriptions for how to go about governing. It is, then, worthwhile to pay attention to prevalent knowledge claims pertaining to the 'nature' of what is to be governed in the name of promoting resilience.

As was outlined in Section 1.4, fostering resilience is said to require that authorities refrain from offering direct support to populations, lest it stifle or erode a population's latent adaptive capacities by rendering them as passive recipients of aid. Such policy prescriptions were, at origin, derived from newfound understandings of humanity's complex ontology. Resilience, then, is animated by a biopolitical logic which is also eminently liberal in that governance methods are deduced from particular scientific understandings of the nature of human life and how it can best be improved. In the field of development, a 'complexity' account of social-ecological ontology is validated on account of its intuitive ideological fit with a neoliberal biopolitical knowledge which

maintains that entrepreneurial capacities and self-reliance for individuals and communities can best be harnessed by decentralizing risk management and responsibilities for welfare provision.

The use of the concept of biopolitics renders my analysis more sensitive to this underlying liberal logic animating international development in the name of resilience. It also sensitizes me, more specifically, to those hegemonic claims about the nature of individuals and of life itself, and how these claims inform specific approaches to rule.

3.3. Methodology

3.3.1. Data Collection and Analysis Approach

For Aradau and van Munster, "[t]he heterogeneous elements that make up a dispositif can be understood more systematically as *rationalities and technologies of government*" (97; added emphasis). Rationalities "appear as knowledgeable discourses that represent objects of knowledge, confer identities and agencies upon social and political actors, and identify problems to be solved." They are, in a sense, discourses that construct problems and point to possible answers. "Technologies", in turn, "are the means of realization of rationalities, the social practices which are aimed at manipulating the social and physical world according to identifiable routines" (ibid.). Technologies can be understood according to the Paris School concept of practices. It should be emphasized that rationalities do not necessarily precede technologies – rather, as the Paris School argues, technologies can lay the terrain for rationalities.

In order to explore the rationalities constituting climate security threats, the most appropriate evidence comes from reports, policy papers, and strategy documents produced by bureaucrats and professionals working within EU institutions and agencies with policy-making or agenda-setting authority in the field of development and security. This project will primarily focus on the European Commission and the European Commission Humanitarian Aid and Civil Protection Operations (ECHO), which coordinates and implements the EU's international humanitarian relief and development policies in partnership with third states and NGOs.

Given that international development by the EU is, in major part, undertaken in partnership with international and civil society organizations, exploration of the technologies deployed in the name of resilience will include consideration of the programs and activities of third states and non-governmental humanitarian and development agencies.[13] This project will describe and analyze the forms of humanitarian, development practices, and risk management practices undertaken in the name of resilience.

---

[13] The EU's mobilization of civil society organizations in the pursuit of development objectives corroborates the claim that the EU's international development practice is informed by a neoliberal ethos. As Busumtwi-Sam has explained, major aid donors have tended to view the empowerment of global civil society as "central to preventing regulatory encroachments by the public sector over the private", and have also been successful in orienting the latter's objectives to conform to prevailing political-economic assumptions and values. The effect has been that "the contemporary discourse on civil society in development has been fused with aspects of the Washington Consensus to produce a kind of 'neoliberal populism'" (262). In addition, according to Sending and Neumann, the proliferation of civil society organizations in international development and governance signifies neither the erosion of states' political authority, nor their retreat from efforts to govern. *Pace* conventional analyses of global governance, the expansion of responsibilities granted to NGOs indicates the *intensification* of a global governmentality that governs populations 'at a distance.' Taken together, these authors' analyses support a notion central to this project, which is that neoliberalism cannot be meaningfully understood as the withdrawal of states' efforts to govern. Instead, neoliberalism is more usefully understood as a 'principle of formation' that *constitutes* the objects it governs.

Chapter 4.   Resilience in EU Discourses

4.1. Resilience in EU Development Discourse

The Paris School's theoretical approach emphasizes bureaucrats and professionals as crucial players in the process of securitization. Even in cases where political elites constitute the final site where securitization crystallizes in policy and formal state action, Paris School authors find that this outcome is rooted in the pre-established practices and understandings proliferated by the field of relevant experts. Oels' Paris School analysis of climate security politics attributes the securitization of climate change to a process that she terms the "climatization of the security field," by which she means that "the security field is expanding to include climate change professionals with their practices of risk management, climate modelling, etc.", and that "new practices from the field of climate policy are introduced into the security field" (2012: 185). A core area of the climatization of security, Oels argues, is the international development sector insofar as it comes to be "marked by the introduction of adaptation as a new goal of development policy" (ibid. 200). Development undertaken to promote adaptive capacities, however, is not understood in economistic terms that have classically defined the international development field. "Rather than reducing poverty levels per se, development policy is currently focused on enhancing resilience and self-reliance, i.e. the capacity to adapt to any kind of disruption" (ibid.). Although lauded as a paradigm shift that contests the hubristic modernist ambition to control nature, the emphasis on 'capacity building' also reveals the resilience concept's limitations, given its unwillingness to account for the broader structural forces that also impede improvements in life chances in the Global South.

For the purposes of this project, it is crucial to analyze the ways in which resilience is framed as a development issue because, like other governments and major international organizations, the EU channels (and helps constitute) a discourse that

positions some societies in the Global South as potential threats to the North, on account of the former's underdevelopment. To illustrate, the EU's Strategy for Security and Development in the Sahel maintains that "security and development in the Sahel cannot be separated", and urges that "[t]he problems facing the Sahel not only affect local populations but increasingly impact directly on the interests of European citizens" (EEAS, 2011: 1). Securing the Sahel through development, the report insists, is a way of "strengthening also the EU's own security" (ibid. 2). The securitization of development in general has implications for the EU's international development policy. For instance, a European Commission communication to the Parliament and Council makes a case for fostering tighter policy coherence between development and other policy sectors, arguing that the "EU should ensure that its objectives in the fields of development policy, peace-building, conflict prevention and international security (including cyber security) are mutually reinforcing" (European Commission, 2011: 7), citing also two Council Conclusions that maintain a link between development and security (Council of the European Union, 2007a; Council of the European Union, 2007b). Security and the management of threat, then, are achieved partially through international development efforts for governing the life of target populations.

The discursive connections between security and development means that understanding the way in which resilience is defined as a development goal is an initial step in understanding how resilience informs discourses of security and threat. This section argues that an important dimension to the EU's discourse of underdevelopment is that a lack of self-reliance in parts of the Global South undermines resilience. If neoliberalism constitutes a condition of possibility for the proliferation of resilience discourse, as this project's literature review showed, then it follows that neoliberalism is a condition of possibility for those contemporary discourses of insecurity preoccupied with shortfalls in self-reliance. To the extent that resilience is increasingly coming to be a central organizing principle and objective of development practice, it is the professionals concerned with fostering resilience who appear to be most influential in shaping relevant understandings. Indeed, it would appear that it is European development agencies and their professionals, as well as other bureaucrats and experts, who demonstrate the most advanced understandings of resilience-thinking, and who are active in advocating its place as an answer to contemporary challenges.

A case in point is the European Sustainable Development Network (ESDN)[14], which linked the concept of social-ecological resilience to development and governance in a climate change context. In a report on resilience-thinking for sustainable development, the ESDN relies heavily on the early ecological and social-ecological resilience literature to explain the concept and its practical importance. Notably, the report is faithful to one of the core tenets of social-ecological resilience thinking, namely de-emphasis on protection from shocks and stresses and greater preoccupation with social-ecological systems' capacities to metabolize, and grow from, disruption. For instance, the report suggests that a conception of resilience focused on "resisting disturbance and change" is in fact "too narrow" (ibid. 9). It advocates for a "perspective [that] shifts policies from those that aspire to control change in systems assumed to be stable, *to managing the capacity of social-ecological systems to cope with, adapt to, and shape change*" (ibid. 25; original emphasis). "In the case of climate change", the report continues, "it is known that this will inevitably cause shocks and disruptions to societies in many ways" (ibid. 34). Nurturing resilience may be achieved by devolving responsibility away from hierarchical bureaucracies, and ensuring that "those most affected by [ecological] feedbacks are those responsible for the action" (ibid. 37).

Other professional networks within the EU have worked to link resilience with EU-supported international action. Notably, the European Commission Humanitarian Aid and Civil Protection Organization (ECHO), which channels EU humanitarian and development assistance globally, has adopted resilience as a guiding concept in its humanitarian and development policies. In this regard, ECHO launched two flagship resilience initiatives in 2011 and 2012 following two food crises in Africa's Horn and Sahel regions, respectively. The first program, named 'Supporting the Horn of Africa's of Africa's Resilience' (SHARE) initiative, aspires to facilitate "a joint humanitarian-development framework" (ECHO 2015a: 3) that links relief, rehabilitation, and development. This approach is also adopted in the EU's second resilience framework, the Global Alliance for Resilience Initiative (known by its French acronym, AGIR), which states that "[h]umanitarian aid provides vital relief but cannot prevent crises" (ECHO,

---

[14] The ESDN describes itself as "an informal network of public administrators and other experts who deal with sustainable development strategies and policies" and which "gives advice to policy-makers at the European and national levels" (Pisano 2)

2015b: 1), and that building resilience requires that a continuum be established between "relief, development and governance" (ibid. 3). Fostering resilience, then, is not sought only though the provision of relief in situations of acute crisis, but through the strategic deployment of aid in the name of reforming and governing aid beneficiaries.

The ESDN and ECHO reveal an inclination to implicitly or explicitly bridge the social and the biological such that the concept of resilience can be applied as a totalizing discourse that enfolds both. This reflects a discursive move that was described in section 1.4, whereby complexity theory was used to envision the social and the 'natural' as comprising one complex adaptive system. The ESDN report maintains that "humans live and operate in social systems that are inextricably linked with the ecological systems in which they are embedded", that "social-ecological systems are complex adaptive systems that do not change in a predictable, linear, incremental fashion", and that therefore "resilience thinking provides a framework for viewing a social-eco-logical [sic] system as one system operating over many linked scales of time and space" (Pisano 10).[15] Thus, in one move, the report goes from a thoughtful reflection of the reality that humans rely on the integrity of the ecological environment for their well-being, to the far more philosophically and ethically problematic assertion that a property said to be intrinsic to ecological systems is also inherent to human populations.

Although ECHO does not express the same biologistic tropes as the ESDN, its understanding of resilience clearly owes a debt to the concept's contemporary origin in ecology. One of ECHO's definitions of resilience is "the ability of an individual, a household, a community, a country or a region to withstand, cope, adapt, and quickly recover from stresses and shocks such as violence, conflict, drought, and other natural disasters without compromising long-term development" (ECHO and EuropeAid 1). Consistent with traditional resilience-thinking, this definition focuses on the capacity to endure stresses and shocks to lives and livelihoods, rather than on protecting those

[15] The report also applies the concept of resilience to social-ecological systems in a literal way, arguing that these systems "have the potential to exist in more than one kind of regime…in which their function, structure, and feedbacks are different." It defines the resilience of social-ecological systems, furthermore, as the "capacity to undergo some change without crossing a threshold to a different system regime, which is a system with a different identity" (Pisano 11). This report thus candidly reveals the biologistic horizons or resilience thinking.

livelihoods from those disruptions. Furthermore, in including the strategic concern for the integrity of "long-term development" in the face of stresses and shocks, this definition also articulates a concern with the magnitude of thresholds within which desirable societal dynamics can continue to take place. This point is crucial for both the analysis undertaken in this project, as well as the project's critical posture toward one of the most problematic notions to accompany the concept of resilience; as section 5.3 will discuss, the perspectives of the EU and allegiant organizations is that some degree of disturbance induces resilience and fosters development in the long-term.

The original conceptualization of ecological resilience, which emphasizes the uncertainty and unpredictability of complex adaptive systems, also seems to influence ECHO's understandings. In this regard, ECHO maintains another definition of resilience, which is "the capacity of vulnerable households, families and systems to face *uncertainty* and the risk of shocks, to withstand and respond effectively to shocks, and to recover and adapt in a sustainable manner" (ECHO 2015b: 2; added emphasis). This definition again reflects an idea central to the resilience literatures, which is the need to curb epistemic ambitions for predicting and anticipating future patterns of shocks and stresses. As Holling argued, resilience thinking foregrounds "not the presumption of sufficient knowledge, but the recognition of our ignorance; not the assumption that future events are expected, but that they will be unexpected" (1973: 21). In doing so, resilience thinking inclines both policy-makers and target communities to perpetually assess capacities for learning and adaptation. Rather than permitting the calcification of a single effective approach for managing resources, risk, or change, the point of resilience-thinking is "to keep options open" (ibid.). To be sure, resilience-thinking does not treat uncertainty as a regrettable limit to informed policy and action, but rather argues that it generates possibilities of its own. As Chandler observes, the uncertainties created by non-linearity are in fact "used as an agenda for governance" (2014: 11) in the international development realm, insofar as they provide the rationale for moving away from the "top-down" paradigm of classic liberal interventions. Instead, complexity inclines policy-makers to aspire to "channe[l] the differentiated rationalities and local knowledges and understandings" of those to be governed, since they are said to be the best-equipped to manage disturbance and change. It is this very inclination to transfer responsibility to local actors and to rework interventions through the discourse of

capacity building and responsibalization, that makes resilience resonate with neoliberal sensibilities in the field of development (ibid. 51-52).

However, transferring responsibility for intervention to those states and communities most directly affected by disasters and chronic stresses does not mean that the EU abdicates its charge to intervene. As was previously discussed, neoliberalism does not stand in a negative relation to the state, but rather must be seen as a set of practices that intensify governance by shaping interests, dispositions, and freedom. As such, it is the constitution and mobilization of particular forms of agency that is at the heart of the EU's approach to resilience. Among ECHO's goals is to reform target populations: instead of being recipients of material assistance, they are called on to become active providers for their own needs, even in situations of severe adversity.

For instance, the SHARE initiative aspires to resolve "protracted situations" through efforts to "fund programmes for self-reliance." In doing so, SHARE hopes to "reduce the dependency of refugees, Internally Displaced Persons (IDPs) and returnees on external aid" (ECHO 2015a, 3). The concepts of resilience and self-reliance are closely coupled in EU development discourse. A recent Commission communication to the Parliament and Council proposes a policy framework to manage the impacts of protracted displacement and improve resilience "by fostering self-reliance" (European Commission, 2016: 1) through various strategies in the field of international development. A key theme that emerges in this document is that refugees' degree of aid-dependence is determined by whether refugee populations exercise their agency effectively or not. For instance, it argues that "[t]o help increase self-reliance, it is essential that both the displaced people and the host communities take an active part in formulating programmes and strategies" (ibid. 6, 10), thus implying that populations' status in terms of development is in large part determined by the extent to which they are subjects, rather than objects, of policy. This recalls Abrahamsen's research showing how neoliberal governmentality exercises power through partnerships in development policy-making, seeking to "produce modern, self-disciplined citizens and states by enlisting them as responsible agents in their own development" (1460). At the same time, this communication also invokes the market as a principle venue for fostering resilience and self-reliance, given that "displaced people are potential workers,

professionals, business people and development agents" (European Commission, 2016: 14), who could deal with the effects of protracted displacement if only given access to the market.

Strategies for building resilience also take the form of community-based strategies seeking to equip people to manage risk at local levels. For the AGIR initiative, the referent object of development are indigent populations, namely "small-scale vulnerable agricultural households…agro-pastoralists and pastoralist households…[and] poor workers in the informal sector, both in rural and urban areas" (SWAC 11-12). These populations, however, are not designated as the beneficiaries of redistributive schemes, but rather marked for programs seeking to enhance communities' capacities for welfare provision. Accordingly, AGIR aims to implement programs for fostering "human capacity building at all levels, and support for communities in their efforts to build resilience through building/strengthening community governance, social service systems (water, education, health, etc.), community food storage systems and other infrastructure, community early warning and prevention, etc." (ibid. 8).[16] In line with the neoliberal commitment to shift the burden of welfare provision and risk management from state agencies to people, the EU's approach to development is in accordance with the neoliberal dispositif that calls on people to "abandon the idea of state-led modernization strategies and practice 'community-based self-reliance'" (Reid, 2013: 357).

Though providing people with greater possibilities for undertaking local initiatives is by no means objectionable, serious practical and ethical questions must be asked about EU agencies' framing of the problem of climate-vulnerability and underdevelopment as an issue of community capacities for self-reliance. As the following section will show, the EU's climate security discourse emphasizes weak adaptive capacities as the determinants of climate vulnerability. It does so in a way, however, that effectively abstracts from affluent states' role in generating the climate crisis and from broader structures of inequality in the global political economy.

[16] Note that the Roadmap defines "social services" as commodities or practices that sustain human life and well-being (drinking water, healthcare, education), rather than in terms of state support systems that provide them. It is not weak state capacity that is said to erode access to social services, but a "lack of income" and purchasing power of households (SWAC 5).

4.2. Climate Change and Security in EU Discourse

This section reviews key statements regarding the notion of climate change as a security threat, as found in policies, reports, and other official communications produced or adopted by the European Commission and the European Council. It argues that, along with resilience, the EU's climate security discourse relies on antecedent discourses – namely human security, failed states, and the security-development nexus – in order to discursively structure climate security threats to Europe. In this regard, the EU's climate security discourse rehearses antecedent discourses that envision underdeveloped peoples in the Global South as threats to the North on account of their susceptibility to societal disruptions and the externalities that this entails (Duffield, 2006: 11-15). The articulation of climate security in accordance with the notion of human security and development, furthermore, illuminates how the former discourse is invested by biopolitical rationales and practices long exercised by Northern states in the name of international security. To adapt from Duffield's research on human security in practice, climate security becomes a "technology that empowers international institutions and actors to individuate, group and act upon Southern populations" (ibid. 13). Predictably, climate security threats are not conceived of as products of Northern consumptive habits primarily. Instead, threats arise mainly from populations deemed insufficiently capable of and adapting to the effects of climate change.

EU statements do not conceive climate change as a raw force that threatens security, nor do they demonstrate a deterministic view of the effects of climate change on security. Rather, the EU discourses reflect a biopolitical perspective that takes account of intervening variables and contextual elements – i.e., the milieu – that shape the security environment. In this respect, the report titled "Climate Change and International Security" (CCIS), authored jointly by the European Commission and the High Representative for Foreign Affairs and Security Policy at the request of EU Member States (Zwolski and Kaunert), identifies climate change as a "threat multiplier" with the potential to aggravate existing political and social tensions in parts of the developing world (Solana and European Commission 1). In a similar fashion, the December 2008 follow-up report to CCIS also points to the Middle East, North and Sub-Saharan Africa, and Central Asia regions as areas where climate change may exacerbate existing

adversities and social tensions over the management and distribution of scarce resources and declining opportunities for paid work (High Representative).

EU statements on climate security also invoke the problem of poverty and underdevelopment as a security problem. The 2008 Report on the Implementation of the European Security Strategy states that climate change worsens "natural disasters, environmental degradation and competition for resources", thereby "exacerbat[ing] conflict, *especially in situations of poverty and population growth*" (Solana, 2008: 5; added emphasis). This reflects the perspective of major international institutions like the World Bank, which asserts that violent conflicts are "not just a problem for development, but a failure of development" (Collier et al., ix). With regard to question of climate security, then, the EU's discourse problematizes the issue of climate change in reference to the interaction between climate change on one hand, and extant material conditions and social-political dynamics on the other. In this way, the EU's climate security discourse places the climate security focus on Southern states' and populations' inability to manage the effects of climate change.

These problems are not framed only in humanitarian terms, but are also said to constitute "political and security risks that directly affect European interests" (Solana and European Commission 2). CCIS argues that climate change is entwined with the broader problem of fragile states, which will become increasingly burdened by "climate change-induced hardship." This, it is thought, will exacerbate privations and ultimately lead to social breakdown, migration, and radicalisation (ibid. 5). The follow-up report to CCIS illustrates this idea more explicitly, in pointing to a number of scenarios where human security threats arising from sea level rise, desertification, extreme weather, and worsening food and fresh water scarcities destabilize entire states and regions, with externalities taking the form of mass migration from failing Southern states to Europe and threats to energy supplies (High Representative 2). This concern dovetails with the post-9/11 discourse which largely inverted Cold War preoccupations with militarily powerful states and foregrounded weak and fragile states as constituting the most potent threats to security (for example, see White House). Accordingly, failed states are said to threaten "our [i.e., Europe's] security through crime, illegal immigration and, most recently, piracy" (Solana, 2008: 1).

The influence of the human security discourse is also indicated by statements invoking the transnational character of climate security threats. CCIS, for instance, calls on policy-makers to take stock of "the effects of globalisation on [the EU's] external relations" (Solana and European Commission 2). The 2009 "Joint Progress Report and Follow-up Recommendations on Climate Change and International Security" similarly states that the security implications of climate change are by nature not geographically containable, but "will be magnified by the increasingly interconnected nature of the global system" (Council 2009a, 2; also see Council 2009b, 1). This is not the 'classic' threat of armies crossing borders. Instead, the threat takes the form of migrants, terrorists, disease, and radical ideologies that may circulate through the "arteries" (Solana, 2008: 1) of global networks. This is consistent with the axiomatic view that in today's "radically interconnected world, no matter how distant or seemingly insignificant the conflict, the security of the West itself is now threatened" (Duffield, 2007: 118).

The diffused and transnational characteristics of human insecurity have meant that efforts to redress them have relied on multiple strategies aiming to manipulate and optimize populations' milieu, and have not turned only, or primarily, to militarized approaches. In Zwolski's estimation, "human security underpins the EU's commitment to link security objectives with development policy" (71).[17] Already in 2003, the European Security Strategy de-emphasized the threat of interstate war, arguing that "[l]arge scale aggression against any Member State is now improbable" (Solana, 2003: 3). Neutralizing the new "dynamic threats" requires using "the full spectrum of instruments for crisis management and conflict prevention…including political, diplomatic, military and civilian, trade and development activities" (ibid. 11). Reflecting this idea, CCIS similarly states that "in line with the concept of human security, it is clear that many issues related to the impact of climate change on international security are interlinked requiring comprehensive policy responses" (Solana and European Commission 2). To this effect, "the EU is in a unique position to respond to the impacts of climate change on

---

[17] The extent to which human security and development have converged so deeply in the EU's development policies is reflective (and generative) of the wider discourse that treats human security primarily as a question of development and underdevelopment. For a detailed discussion on the imbrication of human security and development within the discourses of major international institutions and states, see Busumtwi-Sam (2002).

international security, given its leading role in development, global climate policy and the wide array of tools and instruments at its disposal" (ibid.).

Climate change, however, compounds problems and raises new ones for development in zones subjected to recurring disasters and chronic environmental stresses. Classic approaches to international development focused on fostering economic growth or, alternatively, addressed issues of human development by promoting literacy, commodity- and labour market attachment, food and water access, among others. In either case, development agents pursued fixed, usually quantified goals determined at the outset and re-appraised as development projects met unexpected successes or setbacks. In a changing climate, however, one cannot assume that whatever achievements have been made in food, market, and knowledge access can be consolidated, since the environmental support systems underpinning all of these realms are liable to degrade profoundly.

As Section 4.1 showed, this problem calls for more intangible development goals centered on populations' social and motivational capacities for adaptation. CCIS, for instance, flags Africa as a particularly vulnerable region given the region's "low adaptive capacity" (6) to "stressors" such as droughts, failed harvests, water shortages, and the spread of vector-borne diseases. Invoking the need for an resilience agenda in approaches to global development and governance, this document calls for the EU to "[f]urther integrate adaptation and resilience to climate change into EU regional strategies" (10). In a later iteration, the 2008 follow-up report to CCIS asserted the need for the "[i]ntegration of climate change adaptation into development cooperation", as this will "help enable vulnerable societies to cope with the additional pressure brought about by climate change" (High Representative 1). The entanglement of resilience and securitized forms of development was also indicated in a report, authored the European Parliament Directorate-General for External Policies, that sets the stage for the creation of a new European Security Strategy. This report argues that while wealthier countries possess considerable capacity to adapt to climate change, "other countries, particularly those already stressed by violence and poverty will not be able to rise to the challenge." In this context, "focused targets, resilience, strategic planning and good governance are significant aspects of reducing human insecurity in climate change" (Anthony et al. 30).

Two points of analysis can be drawn from the preceding discussion. First, by emphasizing that threats arise from the interaction between poverty, adverse social-political dynamics, and climate change in the Global South, the discourse of climate security falls in line with the tenets of human security. Consequently, policy-makers identify international development as the primary means by which to act on Southern populations and foster the security of Northern societies. This corroborates the general claim made by numerous authors, that climate change is securitized on the basis of non-adversarial measures: the targets of security measures are not enemies to be repelled or destroyed, but rather impoverished peoples whose biopolitical condition is to be ameliorated.

Second, in relying on the discourse of human insecurity to structure climate insecurity, the EU discourse effectively positions Southern populations as a source of threat to themselves and to Europe. The EU's securitization of climate change does not, as might have been hoped, identify European and other Northern societies as the main culprits of climate threats. Instead, Southern populations are called upon to be resilient in the face of global warming, so that the adverse effects of climate change might not circulate globally in the form of migrants, terrorism, and threats to the extractive needs of industrialized economies. As the following section will show, this is to be achieved through a series of development efforts focused on community-level capacities to detect imminent hardships, and to manage them through their everyday routines.

Chapter 5. The Biopolitics of Community-based Risk Management

This chapter analyzes two distinct but inter-related sets of practices advanced by EU agencies and undertaken in partnership with NGOs and international organizations in the development field – community-based early warning systems, and community-managed disaster risk reduction. These sets of risk-based practices are deployed in the attempt to foster climate-resilient populations through forms of development aid.[18]

After an initial exploratory research phase that identified CBEWS and CMDRR as theoretically and ethically consequential objects of analysis in the first place, the selection of cases of NGOs and international organizations employing these practices proceeded on the basis of a number of criteria. First, only NGOs and agencies of international organizations that could be identified as partnering with and/or being funded by EU agencies were selected. Second, the research sought out *typical cases* of CBEWS and CMDRR, i.e. cases were chosen based on judgment of the degree to which they were indeed "representative a broader set of cases" (Gerring 91). This entailed an inductive approach to case selection (ibid. 92) to identify the *rationalities*, *technologies*, and *objectives* characteristic of such risk-based practices (Aradau and van Munster). This task was guided theoretically by a reflection on the potency of biopolitical rationalities and their relationship to discourses of risk, and by attentiveness to the argument that practices can be analyzed in light of the *dispositif* that constitutes them in relation to hegemonic approaches to governance. Third, cases were selected that provided sufficiently rich documentation of CBEWS and/or CMDRR practices, as this

---

[18] As was indicated in Chapter 3, examining EU discourses and practices in the realm of development requires looking beyond only the statements expressed by EU institutions and agencies themselves, given that the contemporary international development regime consists in significant part of civil society organizations operating within a governmentalized regime that links their activities to the objectives of states and major international institutions (see Sending and Neumann).

allowed for a more robust discourse analysis and helped ensure a valid analysis (Van Evera 79). Finally, to mitigate the risk of selection bias, instances of CBEWS and CMDRR were selected from different countries and regions.

Before presenting the analysis of these NGOs' practices, this chapter will first clarify the conceptual linkages between discourses of risk and risk-based practices on one hand, and biopolitical rationalities and modes of governance on the other.

5.1. Risk, Biopolitics, and Complexity

As Section 3.2.1 briefly mentioned, biopolitical practice seeks to apprehend and manage contingencies affecting human life. Contingency, however, can be said in different ways, and its problematics are construed differently for various agencies and projects. At an individual's level, the limitless array of adverse contingencies – accidents, diseases, financial hardship – are experienced as "both random and avoidable (given a little prudence)" (Ewald, 200). Biopolitical practice is not directly concerned with securing particular individuals from particular events manifested through seeming randomness. Rather, in aggregating individually-lived contingencies through statistical representations, contingency appears not as happenstance, but as distributions, correlations, and causal chains. In other words, at the massified level of a population, contingency is ordered and structured, and thus amenable to governance. As Dillon recounts, "[t]he question of contingency, or 'the aleatory', arises…as one of those factical elements or 'natural' processes to which liberal governmentality must attend, with which it must deal and in relation to which it has to regulate and evaluate its own performance and effectiveness in its ambition to exercise power over life" (45).

Structured representations of contingency have long been formalized through the concept of risk. Risk is a concept that facilitates priority setting, allowing authorities to make decisions by calculating the probabilities and consequences of adverse events. Critically, however, risk also entails a certain understanding of causality and appropriate response strategy. Specifically, risk-thinking foregrounds the constitutive factors that

make an occurrence possible, even if that occurrence does not in fact manifest in any particular case.[19] As Castel would have it, risk "inscribes reality as harbouring 'potential dangerous irruptions'" (quoted in Aradau and Munster 98). For Corry (2012), this is what has traditionally distinguished the concepts of risk and threat in security practice, where threat is a manifested mature phenomenon taking the form, for example, of military action or a terrorist plot. Whereas threats can be defended against, risk is managed and governed by intervening at the level of the constitutive factors.

According to Foucault, biopolitics is premised on a logic of risk because, for biopolitical governance to work, "mechanisms have to be installed around the *random* element inherent in a population of living being so as to optimize a state of life" (2003: 246; added emphasis). Managing risk is a question of calculating the differential probabilities of events or phenomenon across different segments of a population, or of defining those segments and 'sub-populations' on the basis of probabilities that they share (Foucault, 2009: 83-91). State administrators equipped with these calculative techniques could not only flag individuals belonging to 'high-risk' sub-populations, but also manage "aggregate levels of harm by seeking to modify the factors within a population, a geographical area, a portion of the life course, associated with increased levels of risk" (Rose 31). Biopolitical practice, then, apprehends randomness through various means in order to "govern through contingency" (Dillon 46).

Classically, risk operates in an actuarial mode, accumulating masses of historical data in the attempt to establish the relationships and continuities between the past and the future (ibid. 44). In combination with theories of probability that define a set of laws for the distribution of chance occurrences, experts could forecast a range of different phenomena such as mortality, morbidity, crime, work accidents, and others, with high degrees of accuracy, and intervene effectively

[19] For example, in Western countries, authorities may identify mal-integration, a lack of economic opportunity, and social proximity to radical leaders among Muslim populations as risk factors for extremism and 'homegrown terrorism.' An individual who is subject to these risk factors may become radicalized, may join militants in a foreign country, or commit violence home. Or, he may not. Each of these factors is, importantly, amenable to statistical representation and calculation (in principle), and possibly to intervention at the level of the risk factors (see Bell for an example of how this style of risk management has been used by police and intelligence services to govern 'risky' Muslim populations in the name of national security).

The nature of climate systems, however, poses limitations on the degree to which traditional scientific modes of calculation can adequately predict the long-term effects of climate change and allow policy-makers to respond effectively. Climatology, like other fields, has increasingly come to be informed by what this project previously referred to as the 'complexity sciences', which posit order to be "'complex', mutable and dynamic rather than merely complicated" (Dillon and Reid: 42; also see Mayer). Foregrounding the dynamic processes that endogenously constitute the very factors and relationships that characterize a complex system at any point in time (Chandler, 2014: 20-32), complexity science views complex system as emergent, non-linear, and unpredictable. This view of climate systems was expressed, in one instance, in the Intergovernmental Panel on Climate Change's (IPCC) Fifth Assessment Report (AR5), which explains that the "nonlinear and chaotic nature of the climate system imposes natural limits on the extent to which skilful predictions of climate statistics may be made" (Kirtman et al. 955). An earlier IPCC report on climate risks and vulnerability cites the issue of "non-stationarity" whereby "the statistical properties of weather events will not remain constant over time" (IPCC, 2012: 76). This implies that uncertainty arises not simply from a lack of good data or from difficulty in interpreting it. Uncertainty, rather, is generated from the possibility that the very relationships and salient elements constituting a 'complex' climate system are liable to transform.

To be sure, non-actuarial modes of risk calculation and management have served as alternatives to the actuarial style of risk thinking. Precautionary risk management is one such alternative that has been at the heart of the global climate governance regime, established in 1992 through the UN Framework Convention on Climate Change (UNFCCC) and the Rio Declaration that accompanied it. Precautionary risk management emerges at the intersection of scientific uncertainty about the causes or likelihood of an adverse event, and a belief that the consequences of the event or phenomenon would be catastrophic. This approach to risk management legitimates a set of policies that "*actively* seek to prevent situations from becoming catastrophic at some indefinite point in the future" (Aradau and Munster 105; original emphasis). The Rio Declaration thus states that "[w]here there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (Rio Declaration).

So far, however, the stated commitment to precaution has not manifested in strong preventive action. Over twenty years since the birth of the UNFCCC, the AR5 warns that the possibility remains of "potentially severe impacts to Article 2…which refers to 'dangerous anthropogenic interference with the climate system" (IPCC, 2014: 11). Furthermore, as the most recent agreement produced at the COP 21 summit in Paris acknowledges, the current aggregate 'intended nationally determined contributions' are insufficient and that "much greater emission reduction efforts will be required" to keep average future temperatures below two degrees Celsius above the pre-Industrial Age average (COP) – i.e., the upper limit that the climatological consensus considers to be safe.

5.2. Risk, Complexity, and Community-based Early Warning

The limits to precautionary and predictive forms of risk management, coupled to a neoliberal dispositif that de-centralizes risk management, incites novel ways of knowing and managing climate risks. This alternative logic, it would seem, is embodied in the 'sentinel' rationality of early warning. As early as 2008, CCIS stated that managing climate security risks requires the use of early warning systems that assess the ongoing effects of climate change and environmental degradation in developing countries "alongside other relevant variables such as governance, demographic pressures or regional conflicts" (Solana and European Commission 5). A need for early warning was also expressed in the EU Strategy for Supporting Disaster Risk in Developing Countries, one aim of which is to support EU climate management efforts abroad while contributing to the objectives and recommendations of CCIS (European Commission, 2009: 9). This document explicitly pointed to early warning as a tool central to fostering resilience and climate adaptation in the "context of increasing climate variability" (ibid. 7). Early warning, then, is identified as a tool for helping to manage the effects of increasingly erratic and severe climate patterns and behaviours.

Early warning systems are designed to help overcome certain epistemic and practical obstacles to prediction- and precaution-based risk management, respectively. Lakoff usefully discusses how early warning risk management systems have been deployed in the field of epidemiology in the effort to detect the circulation of

unanticipated or "previously unknown pathogens." Such systems have also been used in support of so-called "syndromic" epidemiological surveillance that aims to detect a new disease in a population by, for example, identifying anomalies in the rates of emergency room visits or the sale of medication (45-46). In contrast to classic epidemiological and actuarial approaches that rely primarily on amassing historical data to determine levels of risk, early warning systems embody a "sentinel" rationality involving the "vigilant monitoring of the onset of an unpredictable but potentially catastrophic event" (ibid. 45). The objective is not necessarily to establish the relationships and continuities between the past and the future, as in conventional actuarial approaches, but rather to identify and respond to a highly contingent event at the earliest possible stage in time. This, in Lakoff's words constitutes an exercise of "real-time biopolitics" (ibid.)

The sentinel approach is evident, for example, in a report outlining the requirements for a conflict early warning system for the European External Action Service. This report expressed the idea that the fluidity and rapidity of conflict processes means that data collection needs to be "almost continuous" and that, furthermore, "structural data without event data…is insufficient" in order to trigger and facilitate early response (EPLO 4). The EU's Conflict Early Warning System also adheres to a sentinel logic insofar as its stated objective "is not 'prediction'", but rather to "close the gap between early warning and early action" (EEAS, 2014: 4). Put differently, the aim of early warning is not to predict or forecast future events, but to detect them in their infancy.

In light of efforts to support climate resilience efforts abroad, however, early warning systems for climate risks do not appear to have been operationalized at a formal institutional level.[20] Instead, the EU's primary method appears to be to partner with, fund, or otherwise support a number of developmental NGOs that are actively erecting so-called community-based early warning systems (CBEWS) for the purpose of managing risks at local levels. In line with the neoliberal dispositif that extols self-reliance, these

---

[20] Youngs confirms that although the EU has named early warning as a tool for enhancing the monitoring and response capacities of various EU agencies, to date "no climate-related factors are incorporated into the way potential crises are monitored" (9). However, in overlooking the way in which the EU agencies operate in partnership with NGOs, he wrongly concludes that the EU has not been involved in enacting particular types of early warning systems.

early warning systems facilitate disaster risk reduction (DRR) efforts that are not highly dependent on external intervention.

CBEWSs are diverse in their design and implementation, but a common key feature is that they are erected, maintained, operated, and used primarily by local communities, rather than state or international agencies. A technical brief for the Regional Learning and Advocacy Programme for Vulnerable Dryland Communities (REGLAP) – a developmental initiative in the Horn of Africa funded by ECHO and implemented by several large NGOs including Oxfam, CARE, Cordaid, Save the Children, and others – explains that a core dimension of the CBEWS approach is that such systems are "developed, managed, maintained and owned by the community" (Radice and Tekle 1). They do not rely on highly centralized and bureaucratic modes of organization and management, but rather are driven by "[c]ommunity mobilization and volunteerism" and include community members themselves in "participatory analysis" of hazards, exposure, and vulnerabilities (ibid. 2). A technical manual for an ECHO-supported CBEWS in Nepal explains that it is the community's responsibility to "lead all steps of establishment of the early warning system" and to "maintain the EWS either by own [sic] means or means generated from other sources. The community will take the full operational and financial ownership of the system" (Phaiju et al. 63). CBEWSs, then, are informed by a logic of decentralization that shifts responsibility for knowledge creation and use toward the risk-affected communities themselves.

In many ways, the data collection for CBEWSs, and the communications of the actual warnings, mirrors the operational needs and processes of state-based early warning. However, in line with the community-based focus in the former case, this unfolds on the basis of local community agency. For instance, an ECHO-funded Oxfam project for building resilience in Ethiopia and Somalia erected a CBEWS for communities at risk of the effects of drought. The CBEWS comprises community-based "Early Warning Committees" trained to collect, report, and analyze data on environmental, household, and market conditions on a 15-day cycle, and then disseminate the information back to their communities. In the attempt to overcome "the time lapse in the EW [early warning] information getting back to the communities", Oxfam developed a data collection system allowing households to use mobile phones to submit information

to a Web-based system that consolidates, analyzes, and disseminates the information more rapidly (Demie et al. 13-14). The Agency for Technical Cooperation and Development (ACTED), an NGO working in support of AGIR, has set up a similar CBEWS to inform rural communities in Uganda of the onset of drought conditions. Although technically run by Uganda's government, the drought CBEWS enlists communities in the collection of data for the production of monthly Drought Bulletins for use by community actors, rather than state agencies (ACTED 16).

The practice of erecting CBEWSs should be understood in relation to the biopolitical premise that risk is a product a population's 'problem traits.' In this particular case the assumption appears to be that the populations in question are not only vulnerable but also overly dependent on, and expectant of, external assistance. The exposé of Oxfam's CBEWS, for example, discusses how its early warning system "empowers individuals and communities to act in an appropriate manner – reducing the possibility of personal injury, loss of life, damage to property and the environment, and loss of livelihoods" (Demie et al. 12). CBEWSs, according to this view, are not simply designed to protect lives and infrastructure, but are seen to be generative of people's agency, as they become equipped and empowered to overcome adverse conditions. Indeed, community empowerment is not merely embraced as a welcome by-product of the CBEWS approach, but rather appears to be a central component of its very logic. ECHO's CBEWS project in Nepal, for example, explains that the "establishment of the [early warning system] might be done by an external organization. In this process, the community might not be fully empowered" (Phaiju et al. 23). The same sentiment was also expressed in a 2010 report by Save the Children, which details the reasons why an early warning system project in Ethiopia failed. Chief among the reasons identified was that the early warning system only emphasized the workings of "external and regional networks, capabilities and consensus rather than focusing more on local networks, capacities and consensus" (Issack and Yussuf 19). While the report does identify weak formal institutional capacity as factoring in to the ineffectiveness of the early warning system, it also demonstrates a clear prescriptive bias insofar as it downplays the need for "strengthening bureaucratic procedures" beyond the level necessary to ensure the authenticity of early warning information. Instead, it emphasizes the need to foster awareness and response capacity at the community level (ibid. 20).

Empowerment, then, is seen as the antithesis of direct external support. Indeed, expectations of local action regarding CBEWS systems is not limited to data collection and the management of the system, but is also meant to facilitate and stimulate community-level emergency response, with the ultimate objective of limiting the need for external intervention. The Drought Bulletins produced by ACTED's drought CBEWS, for instance, are not meant primarily for use by regional or state authorities, but rather "are given to communities all over [the region of] Karamajo" in order to inform individuals and households about whether and when they should plant particular crops or take certain precautionary measures such as reducing water consumption (ACTED 16). Oxfam's CBEWS project for the REGLAP similarly identifies actors within the community itself as being pivotal in the creation and elaboration of the response strategy (Demie et al. 12). This is consistent with the REGLAP's brief on CBEWS, which explains that such systems are "a means for communities to collectively address a common disaster risk, and to pursue common disaster risk reduction measures" (Radice et al. 1). Being equipped with early warning information will help, it claims, to "transform 'at-risk communities into prepared 'disaster resilient' communities" (ibid. 2). Likewise, the ECHO-supported CBEWS project in Nepal explains that the CBEWS concept expects "that the first response to a disaster always comes from the community itself. It also recognizes the fact that in many cases, top-down and highly technical approaches may fail to address the specific needs of vulnerable communities, ignoring the potentials of local resources and capacities" (Phaiju et al. 9). This perspective argues for the relative potency of community-level response capabilities, in relation to state-based and external forms of intervention and aid.

CBEWSs, then, can be understood as a technology designed to address climate change-related risks and stresses by: helping to overcome the epistemological obstacles to knowing and preparing for climate hardships; harnessing community-level agency in the management and use of early warning systems; and facilitating community-level response. CBEWSs may reflect the pragmatic view of professionals who, cognizant of weak state capacity in areas of the Global South, assume that responsibilities for protection should fall to communities themselves. However, there are deeper questions to be asked of the epistemological underpinnings of a risk-based approach that focuses on community response capacities. As Dillon argues, the seemingly neutral term 'risk' is

not a fact inscribed in an objective reality, but rather should be thought of as "a set of truth-telling practices" that are thoroughly suffused with power relations (45). In accounting for disaster risk as a product of both climate variability and endogenous factors that weaken state and community capacity, the CBEWS concept and other risk discourses effectively mask the historical and political-economic relations that underpin, in part, the very same vulnerabilities and risks with which many in the Global South are burdened, and on account of which they are said to threaten Europe's security. In aspiring to empower communities to manage and assess their own risk, the concept of CBEWSs can be seen as being heavily invested by the neoliberal belief that a self-reliant citizenry provides the most potent countermeasure to contingency and risk.

5.3. Community-based Risk Management: Producing Populations at Risk

Practices focused on fostering resilience are not limited, as in the case of CBEWS, to the risks of acute hardships in the context of emergencies. Rather, resilience-building is also pursued through a long-term developmental agenda for changing community habits and mentalities in ways that will render them more capable of shouldering and absorbing environmental hardships. ECHO, notably, expresses a commitment to placing resilience "as a central objective of development and humanitarian assistance." This, it claims, will help to "tackle the root causes" of a suite of chronic adversities including poverty, hunger, conflict, and fragility (ECHO, 2015a: 1).

Development for resilience focuses on efforts to govern the affective and cognitive dimensions of people's lives, in the hopes of equipping them to respond to chronic stresses in particular ways. As this section will discuss, many of these efforts are organized around the concept of community-managed disaster risk reduction (CMDRR) practices involving technical and pedagogical elements that guide people to conceive of themselves as individuals and communities at risk. In harnessing the logic of risk, resilience-as-development reveals the biopolitical rationales concerned with the 'problem traits' of certain populations. Like CBEWS, CMDRR seeks to stimulate communities' agency to manage their own vulnerabilities. This introduces a paradox, however, because resilience is fostered through exposure to those self-same adversities. The

populations concerned, then, can never be released from their responsibility to manage their own risks. Alongside other Northern organizations, this signals EU agencies' will "to manage and contain disorder rather than resolve it" (Duffield, 2007: viii).

The EU's SSDRRDC maintains that disaster risk can best be managed if beneficiary communities are knowledgeable of the hazards they face, and made formally aware of the vulnerabilities they possess. To the extent that members of target communities internalize such forms of knowledge, participation and inclusion in risk management is intended to "empower people to protect themselves and make their livelihoods more resilient to disaster" (European Commission, 2009: 8-9). Accordingly, the strategy advocates the need for programs that involve the communities themselves in conducting so-called "participatory community risk assessments" (ibid. 8).

EU-funded resilience projects undertaken by NGOs are in line with this CMDRR approach. A case in point is the suite of projects undertaken by the consortium of international NGOs that operate the REGLAP. These projects aim to improve disaster risk management and foster resilience to climate change through various measures. The REGLAP's technical brief on CMDRR candidly underscores this program's governmentality, the purpose of which is to foster particular dispositions among communities affected by climate risks. According to the brief, the "CMDRR process involves making significant changes to the mindsets and established ways of working of the communities and the organizations/governments that serve them." At issue here is the implied lack of motivation of beneficiary communities to address climate risks because, the brief continues, it is "only when community members believe they can increase their capacity to deal with disaster risk, will they take action necessary to start building their resilience" (Haverkort and Halufo 2).

An example drawn from the REGLAP is the activities of the NGO Cordaid, which operates a project for reinstating traditional rangeland management structures, weaving this with CMDRR efforts in parts of Ethiopia. An important dimension to this project is re-establishing access to ecosystem services through the reclamation and revival of pasturelands. However, Cordaid's description of the project also reveals that it is the affective/cognitive dimensions of lives that are targeted for reform, as members of

beneficiary communities are guided in "developing a positive attitude and the skills to resist adversity" (Woldehanna and Cordaid 33). Resilient subjects, for Cordaid, would not appear to be merely those individuals that exercise their own rational agency in managing climate disaster risk. Nor are subjects rendered resilient simply by possessing the material means to resist or cope with hazards. Rather, resilient subjects are those people that internalize particular dispositions in addressing their own risk. Another example is seen in the UN's Food and Agricultural Organization which, under the framework of the REGLAP, operates pastoralist field schools designed to foster innovation and decision-making capacities among beneficiaries. The program description claims that as a result of the guidance of field school mentors, a "strong shift has been seen from a previous mindset of subsistence, to a more business-oriented attitude" (Duveskog 5). Pastoralists are encouraged to become entrepreneurs attached to the market, capable of seeing opportunity where it was previously obscured in order to make their own path to resilience, despite ecological impediments.

In accordance with this reasoning, mention of climate disaster risk repeatedly characterizes disaster and hardship as having creative potential, and which is to be embraced and even woven into the community's social-environmental fabric. For example, the REGLAP's technical brief explains that "[i]n many ways a disaster provides a good entry, [sic] point since people will be very aware of the hazards they face and their vulnerabilities, and maybe [sic] strongly motivated to do something to increase their resilience" (Haverkort and Halufo 2). This perspective is also actively held by ECHO – for instance, the agency advocates for the development principle of "building back better", which entails incorporating risk reduction considerations following a disaster, such as raising the levels of homes in flood-prone areas, or assembling structures that serve multiple purposes, for example as staging grounds for evacuations in the future.

Once again, however, the objective is not simply to constitute material safeguards, but to harness disasters in ways that produce desired subjects. The consideration of how physical structures are mobilized for the constitution of subjectivities and ways of being recalls Foucault's discussion on how architectural forms – for example the prison, the factory, or the school – have long been incorporated into disciplinary regimes of governance (Foucault, 1977). Here, we witness how architectural

forms are woven together by a neoliberal dispositif that devolves risk management to individual and community levels. The principle of building back better is said to serve beneficiaries because it helps them in "raising awareness about how to reduce risk against future hazards" (ECHO, 2015c: 4). This practice would appear to reflect one of the key tenets of resilience thinking, which is that efforts to over-protect systems and ensure stability may in fact render them "undetectably fragile" over the long-term as their capacity to absorb disturbances is eroded (Walker and Cooper 147). As Zebrowski's observes, resilience "proceed[s] by exposing the subject more fully to the environment so as to optimise its governmental effects in encouraging innovation and, crucially, adaptation" (2013: 170). Rather than repel them prophylactically, resilience enfolds disasters into the milieu constituting aid beneficiaries' natural-social existence.

Cordaid's project is thus consistent with the broader discourse animating resilience and CMDRR, which maintains that disasters will be mitigated only when communities at risk of catastrophe embrace their own responsibilities in managing them. This narrative not only reveals CMDRR's governmentality, but also its biopolitics, as the culprits generating disaster risks are the target communities themselves. Through the operations of CMDRR, populations and communities can be saved as they come "to understand that what turns a hazard into a disaster is their incapacity to cope with the hazard, and that they themselves can take concrete actions to prevent disasters" (Haverkort and Halufo 2). This, however, represents an apolitical and highly limited perspective, insofar as it locates climate disaster and risk as a property of the communities themselves, while discounting the global political economic circuits that siphon wealth and capacity from the poorest states, and the economic system and consumptive patterns that cause climate change.

It also reveals an inclination to perpetuate, and even intensify, the deprivations to which some of the poorest people in the world are subject. This is because a central issue in resilience-based development is the question of dependency on the provision of material assistance. The REGLAP's technical brief on CMDRR expresses concern that some communities "are more often familiar with interventions that provide material relief than with projects that facilitate awareness, risk analysis and empowerment. Communities that have experienced disasters in the past, and have received relief aid,

may have expectations about receiving material aid rather than analyzing their own risk and managing their own development." There may be space to supply "some tangible assets", the brief argues, but only insofar as it "helps initiate community motivation and stimulate the participation of community members" (ibid.).

Such statements are based on the notion of people being unwilling to take charge of their livelihoods and well-being in situations where they find themselves at the receiving end of unconditional material provisions. Concerns over aid-dependency resonate with worries over the rising costs of humanitarian aid (European Commission, 2014: 5). However, budgetary restrictions are not the only consideration at work. In its entanglement with the security-development nexus, humanitarianism is denuded of its classic Dunantist commitment to alleviate acute suffering and to save lives. In aligning themselves with the biopolitical injunction to 'make live' those lives shot through with risk (Foucault, 2003: 241), the organizations partnered with the EU's development strategies are liable to become entrapped in those broader discursive regimes animating the strategization of aid where, as others have noted, "humanitarian organizations have become complicit in the practices of 'letting die' lives which, even in the context of immense suffering, are deemed dangerous to the needs and interests of biohuman life" (Reid, 2010: 395).

Chapter 6.   Conclusion

In an article situating contemporary climate change-related development practices within the historical arc of development discourses, Chandler argues that for many states, international agencies, and NGOs, "the problem of development has been reinterpreted in terms of the problem of individual life-style choices and the survival strategies of the poor" (2012: 124). In the context of an international development agenda that has been strongly influenced by contemporary definitions of "development as freedom" (Sen cited in ibid.), development efforts have been re-organized around an "adaptation agenda" focused on promoting the capabilities of those most strongly affected by climate change to become more resilient to its adverse effects.

The discursive shift in development from one focused on longer-term structural transformation based on state-led modernization to one committed to short-term individual 'capacity-building' and strengthening communities from the "bottom-up" has its correlate in discursive shifts in notions of security. This should come as no surprise, given the tight imbrication of security and development in what writers have termed the security-development nexus. Indeed, as Chandler further observes, "[i]n the new international security order, interventions are posed in the language of individual empowerment, freedom and capacity building" (ibid. 116). As this project has found, The EU's climate-security and resilience discourse is consistent with these broader discursive transformations at work globally. What should be made of this discursive linkage, ethically, and practically?

At first glance, the observation that security is being increasingly framed in terms of core liberal notions of freedom, empowerment, and capacity-building might be welcomed as a progressive turn in international security politics. This is because, from the perspective of conventional and even most critical analyses, security has long been tied to "a history and a set of connotations that it cannot escape" (Wæver quoted in Oels,

2012: 191), namely as an embodiment of adversarial relations between friend and enemy and the "logic of war" (see Trombetta; also see Williams 515). Here, security is theorized in terms of the sovereign's power to restrict, deny, and destroy. In contrast, the logic of climate security through development and resilience is more firmly in line with a biopolitical commitment to 'making live', rather than the sovereign rationality of 'making die.'

This research project, however, is not quick to take a sanguine view of the securitization of climate change through development and resilience. This is because in problematizing the survival strategies of those least responsible for, most strongly affected by, and least capable of dealing with, climate change, resilience-thinking risks abstracting from "the broader social and economic relations that force [the poor] into a marginalized existence" (Chandler, 2012: 126). Insofar as resilience is consonant with, and supportive of, a neoliberal commitment to de-centralization for self-reliance, it further delays acknowledgment that the structural solutions to extreme poverty in the global south do not lie solely with the latent entrepreneurial potential of the poor themselves, nor even with the states in which they reside.

Notwithstanding the project's hesitance toward resilience-thinking, there is cause to think that there is a more genuinely emancipatory potential latent within resilience discourse. In an article critiquing the overly-uniform assumption by critical resilience authors that resilience is *always* and *inherently* consonant with a neoliberal commitment to de-centralization and self-reliance, Corry argues that resilience in fact "appears in multiple discourses of governance which are competing to frame and shape security practices" (2014: 257), of which some are capable of challenging neoliberalism in certain ways. Indeed, this comes as no surprise to Corry, given Foucault's insistence that "there is no relationship of power without the means to escape or possible flight" (Foucault quoted in ibid., 262). The author cites, for example, the Transition Towns movement in the UK, where the concept of community resilience has been used to build identities working to "decouple groups from consumerism, build non-commercialized community relations, take power back from corporations and governments, and transform society from below into a lower energy, low-carbon, low-capital alternative" (ibid, 264). The concept of resilience has been harnessed in other countervailing ways, for instance by

the UN panel behind the report "Resilient People, Resilient Planet", which advocates for alternatives to dominant economic knowledge, including the formulation of "sustainable development indicators to replace crude GDP-oriented economic growth" (ibid. 266).

Accordingly, there is space to consider that resilience-thinking may be appropriated from neoliberalism and turned toward more emancipatory ends. In the realm of international development, however, purportedly progressive forms of resilience practice must be scrutinized if they are accompanied by ambitious claims about their capability to address the 'root causes' of hardship for vulnerable communities by equipping them to endure and grow through unending cycles of adaptation to dangers. It should, furthermore, be stressed that no form of resilience practice can claim this emancipatory potential if it is simultaneously accompanied by conditionalities related to aid provision in the context chronic hazards and large-scale disasters. Such claims would be wholly inconsistent, for instance, with the continuance of global political economic asymmetries that facilitate South-to-North wealth flows outweighing the North-to-South development aid budget by over a factor of 15 (Hickel, 2016: 762). A more genuine commitment to Southern development would aspire to systematically address a number of critical drivers of impoverishment in some parts of the Global South, including, for instance, illicit financial flows and abusive transfer pricing by multinationals, financial speculation on global markets in foodstuffs, and the massive debt burden carried by many developing states (ibid.). Rather than relying solely on the responsibalization of individuals and communities to act appropriately in their communities, the pursuit of a meaningful resilience agenda necessitates a more determined effort on the part of international institutions and governments to change global processes.

References

Abrahamsen, Rita (2004). The Power of Partnerships in Global Governance. *Third World Quarterly*, 25(8), 1453-1467.

ACTED (Agency for Technical Cooperation and Development) (2013). "Disaster Risk Management Strategy: Towards Resilient Communities." Paris.

Albrecht, U., C. Chinkin, K. Dervis, R. Dwan, A. Gidden., N. Gnesott., and N. Serra. (2004). "A Human Security Doctrine for Europe: the Barcelona Report of the Study Group on Europe's Security Capabilities."

Anderson Robert (1991). The Origins of the International Rice Research Institute. Minerva, 29(1), 61-89.

Anthony, Ian, Camille Grand, and Patricia Lewis (2015). "Towards a New European Security Strategy? Assessing the Impact of Changes in the Global Security Environment." Publications Office of the European Union.

Aradau, Claudia, and Rens van Munster (2007). Governing Terrorism through Risk: Taking Precautions, (un)Knowing the Future. *European Journal of International Relations*, 13(1), 89-115.

Ayers, Alison (2012). An Illusion of the Epoch: Critiquing the Ideology of 'Failed States.' *International Politics*, 49(5), 568-590.

Bakker, Karen (2010). The Limits of 'Neoliberal Natures': Debating Green Neoliberalism. *Progress in Human Geography*, 34(6), 715-735.

Bailey, Ian and Sam Maresh (2009). Scales and Networks of Neoliberal Climate Governance: the Regulatory and Territorial Logics of European Union Emissions Trading. *Transactions of the Institute of British Geographers*, 34(4), 445-461.

Balzacq, Thierry, Tugba Basaran, Didier Bigo, Emmanuel-Pierre Guittet, and Christian Olsson (2010). "Security Practices." International Studies Encyclopedia online, 18.

Bell, Colleen (2006). Surveillance Strategies and Populations at Risk: Biopolitical Governance in Canada's National Security Policy. *Security Dialogue*, 37(2), 147-165.

Bigo, Didier (2002). Security and Immigration: Toward a Critique of the Governmentality of Unease. *Alternatives: Global, Local, Political*, 27(1), S63-S63.

Bigo, Didier (2006). Internal and External Aspects of Security. *European Security*, 15(4), 385-404.

Brauch, Hans (2009). "Securitizing Global Environmental Change." In Facing Global Environmental Change (Brauch, Hans, N. Behera, P. Kameri-Mbote, J. Grin, Ú. Oswald Spring, B. Chourou, C. Mesjasz, H. Krummenacher, eds). Berlin/Heidelberg: Springer.

Busumtwi-Sam, James (2002). Development and Human Security: Whose Security, and from What? *International Journal*, 57(2), 253-272.

Buzan, Barry (2008). People, States and Fear: an Agenda for International Security Studies in the Post-cold War Era. ECPR Press.

Buzan, Barry, Ole Wæver, and Japp De Wilde (1998). Security: a New Framework For Analysis. Boulder and London: Lynne Rienner Publishers.

CASE Collective (2006). Critical Approaches to Security in Europe: a Networked Manifesto. *Security Dialogue*, 37(4), 443-487.

Chandler, David (2012). Development as Freedom? From Colonialism to Countering Climate Change. *Development Dialogue*, 58, 115-129.

Chandler, David (2014). Resilience: The Governance of Complexity. New York: Routledge.

Chowdhury, Arjun (2009). Failed States: Inside or Outside the 'Flat' World of Globalization? *Security Dialogue*, 40(6), 637-659.

Collier, Paul, et al. (2003). "Breaking the Conflict Trap: Civil War and Development Policy." World Bank Publications.

COP (12 December 2015). FCCC/CP/2015/L.9/Rev.1: Adoption of the Paris Agreement on its twenty-first session, held in Paris from 30 November to 11 December 2015. Draft Decision -/CP.21. Accessed from: https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf

Cornut, Jérémie (2015). "The Practice Turn in International Relations Theory." In The International Studies Association Compendium. Robert Denemark (ed.). Blackwell Publishing. Accessed from: Online.<http://www.isacompendium.com/subscriber/tocnode.html?id=g97814443 36597_yr2015_chunk_g978144433659716_ss1-29>

Corry, Olaf (2012). Securitisation and 'Riskification': Second-order Security and the Politics of Climate Change. *Millennium*, 40(2), 235-258.

Corry, Olaf (2014). From Defense to Resilience: Environmental Security beyond Neo-liberalism. *International Political Sociology*, 8(3), 256-274.

Council (2009a). "Joint Progress Report and Follow-up Recommendations on Climate Change and International Security (CCIS) to the Council." Report no. 166645/09, 25 November 2009. Brussels: Council of the European Union.

Council (2009b). "Conclusions on Climate Change and Security." 2985th FOREIGN AFFAIRS Council meeting Brussels.

Council of the European Union (2007a). "Security and Development." Council Conclusion number 15097/07. Brussels, 20 November 2007.

Council of the European Union (2007b). "An EU Response to Situations of Fragility." Council Conclusion number 15118/07. Brussels, 20 November 2007.

Crampton, Andrew and Gearóid Tuathail (1996). "Intellectuals, Institutions and Ideology: the Case of Robert Strausz-Hupé and 'American Geopolitics.' *Political Geography*, 15(6), 533-555.

De Brito, Rafaela Rodrigues (2012). "The Securitisation of Climate Change in the European Union." West African Studies Global Security Risks and West Africa Development Challenges: Development Challenges, 119-134.

Dean, Mitchell (2010). Governmentality: Power and Rule in Modern Society. Thousand Oaks: Sage Publications.

Dean, Mitchell (2015). The Malthus Effect: Population and the Liberal Government of Life. *Economy and Society*, 44(1), 18-39.

Demie, Lemessa, Abay Bekele, Philimon Majwa, and Ann Jyothis (2011). "An innovative Community Based Early Warning System that Uses Picture-based Indicators and the Web is the Way Forward for Ethiopia-Somaliland." Regional Learning and Advocacy Programme for Vulnerable Dryland Communities.

Deudney, Daniel (1990). The Case Against Linking Environmental Degradation and National- security. *Millennium Journal of International Studies*, 19(2), 461-476.

Dillon, Michael and Julian Reid (2001). Global Liberal Governance: Biopolitics, Security and War. *Millennium*, 30(1), 41-66.

Dillon, Michael. (2007). Governing through Contingency: the Security of Biopolitical Governance. *Political Geography*, 26(1), 41-47.

Duffield, Mark (2001). "Governing the Borderlands: Decoding the Power of Aid." Disasters, 25(4): 308-320.

Duffield, Mark (2005). "Getting Savages to Fight Barbarians: Development, Security and the Colonial Present: Analysis." *Conflict, Security and Development*, 5(2), 141-159.

Duffield, Mark (2006). "Human Security: Linking Development and Security in an Age of Terror." In New Interfaces between Security and Development. Stephan Klingebiel (ed.), Bonn: Dt. Inst. für Entwicklungspolitik. Available at SSRN: http://ssrn.com/abstract=2419373

Duffield, Mark (2007). Development, Security and Unending War: Governing the World of Peoples. Cambridge: Polity Press.

Duveskog, Deborah (2011). "Pastoralist Field Schools: Discovery-based Learning in Practice." In Disaster Risk Reduction in the Drylands of the Horn of Africa: Good Practice Examples from the ECHO Drought Cycle Management Partners and Beyond." Regional Learning and Advocacy Programme (REGLAP) for Vulnerable Dryland Communities. Accessed January 13th, 2016 from: http://www.preventionweb.net/files/21183_reglapnewsletterfinal2011c1.pdf

ECHO (European Commission Humanitarian Aid and Civil Protection Development and Coordination) (2015a). "Horn of Africa – Factsheet." Accessed July 10th, 2015 from: http://ec.europa.eu/echo/files/aid/countries/factsheets/hoa_en.pdf

ECHO (European Commission Humanitarian Aid and Civil Protection Development and Coordination) (2015b). "Building Resilience in the Sahel and West Africa." Accessed July 10th, 2015 from: http://ec.europa.eu/echo/files/aid/countries/factsheets/sahel_agir_en.pdf

ECHO (European Commission Humanitarian Aid and Civil Protection Development and Coordination) (2015c). "Disaster Risk Reduction – Factsheet." Accessed January 14th, 2015 from: http://ec.europa.eu/echo/files/aid/countries/factsheets/thematic/disaster_risk_reduction_en.pdf

ECHO and EuropeAid (European Commission Humanitarian Aid and Civil Protection Development and Coordination) (2015). "Building Resilience: the EU's Approach." Accessed July 10th, 2015 from: http://ec.europa.eu/echo/files/aid/countries/factsheets/thematic/resilience_en.pdf

EEAS (European External Action Service) (2014). "Factsheet: EU Conflict Early Warning System." European Union External Action Service. Accessed February 3rd, 2016 from: http://eeas.europa.eu/cfsp/conflict_prevention/docs/201409_factsheet_conflict_earth_warning_en.pdf

EEAS (European External Action Service) (2011). "Strategy for Security and Development in the Sahel." European Union External Action Service. Retrieved from: http://eeas.europa.eu/factsheets/news/sahel-european-union-factsheet_en.htm

EPLO (European Peacebuilding Liason Office) (2012). "Civil Society Dialogue Network Policy Meeting at Expert Level: EEAS Warning Tools." Brussels. Accessed January 27, 2016 from: http://www.eplo.org/assets/files/2.%20Activities/Civil%20Society%20Dialogue%20Network/Policy%20Meetings/EEAS%20Early%20Warning%20Tools/EPLO_Report_CSDN_Meeting_EEAS_Early_Warning_Tools.pdf

EPRS (European Parliamentary Research Service). "Stay Informed." Accessed April 19, 2016 from: http://www.europarl.europa.eu/atyourservice/en/20150201PVL00031/European-Parliamentary-Research-Service

European Commission (2009). "EU Strategy for Supporting Disaster Risk Reduction in Developing Countries." Communication from the Commission to the Council and the European Parliament. Brussels, COM(2009) 84 final.

European Commission (2011). "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Increasing the Impact of EU Development Policy: an Agenda for Change." Brussels, 13.10.2011 COM(2011) 637 final.

European Commission (2016). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. "Lives in Dignity: from Aid-dependence to Self-reliance." Brussels, 26.4.2016 COM(2016) 234 final.

Evans, Brad and Julian Reid (2014). Resilient Life: The Art of Living Dangerously. Cambridge: Polity Press.

Ewald, François (1991). "Insurance and Risk." In The Foucault Effect: Studies in Governmentality. Graham Burchell, Colin Gordon, and Peter Miller (eds.) Chicago: the University of Chicago Press.

Feitelson, Eran, Abdelrahman Tamimi, and Gad Rosenthal (2012). Climate Change and Security in the Israeli–Palestinian Context. Journal of Peace Research, 49(1), 241–257.

Folke, C., S. Carpenter, T. Elmqvist, L. Gunderson, C. Holling, B. Walke, J. Bengtsson , F. Berkes, J. Colding., K. Danell, M. Falkenmark, L. Gordon, R. Kasperson, N. Kautsk, A. Kinzig, S. Levin, K. Mäler, F. Moberg, L. Ohlsson, P. Olsson, E. Ostrom, W. Reid, J. Rockström, H. Savenije, and Svedin, U. (2002). Resilience and Sustainable Development: Building Adaptive Capacity in a World of Transformation. World Summit on Sustainable Development.

Foucault, Michel (1977). Discipline and Punish: The Birth of the Prison. New York: Vintage.

Foucault, Michel (1982). The Subject and Power. *Critical Inquiry*, 8(4), 777-795.

Foucault, Michel (1990). The History of Sexuality: an Introduction, Volume 1. Translated from the French by Robert Hurley. New York: Vintage.

Foucault, Michel (2003). "Society Must Be Defended": Lectures at the Collège de France, 1975-1976. Translated from the French by David Macey. New York: Picador.

Foucault, Michel (2009). Security, Territory, Population: Lectures at the Collège de France 1977-1978. Translated from the French by Graham Burchell. Edited by Michel Sellenart. New York: Picador.

Foucault, Michael (2012). The Archaeology of Knowledge. New York: Vintage.

Garcia, Denise (2010). Warming to a Redefinition of International Security: the Consolidation of a Norm Concerning Climate Change. *International Relations*, 24(3), 271-292.

Gerring, John (2006). Case Study Research: Principles and Practices. New York: Cambridge University Press.

Gómez-Baggethun, Erik and Manuel Ruiz-Pérez (2011). Economic Valuation and the Commodification of Ecosystem Services. *Progress in Physical Geography*, 35(5), 613-628.

Gleick, Peter (1989). The Implications of Global Climatic Changes for International Security. *Climatic Change*, 15(1-2), 309-325.

Harvey, David (2007). Neoliberalism as Creative Destruction. *The Annals of the American Academy of Political and Social Science*, 610(1), 21-44.

Haverkort, Ton and Hassan Halufo (2011). "Good Practice Principles: Community Managed Disaster Risk Reduction (CMDRR) in the Drylands of the Horn of Africa." Regional Learning and Advocacy Programme for Vulnerable Dryland Communities. Accessed January 15th, 2016 from: http://www.preventionweb.net/files/24270_24270goodpracticeprinciplescmdrr2no.pdf

Hayes, Jarrod and Janelle Knox-Hayes (2014). Security in Climate Change Discourse: Analyzing the Divergence between US and EU Approaches to Policy. *Global Environmental Politics*, 14(2), 82-101.

Herschinger, Eva (2015). The Drug Dispositif: Ambivalent Materiality and the Addiction of the Global Drug Prohibition Regime. *Security Dialogue*, 46(2), 183-201.

Hickel, Jason (2012). Neoliberal Plague: the Political Economy of HIV Transmission in Swaziland. *Journal of Southern African Studies*, 38(3), 513-529.

Hickel, Jason (2014). The 'Girl Effect': Liberalism, Empowerment and the Contradictions of Development. *Third World Quarterly*, 35(8), 1355-1373.

Hickel, Jason (2016). The True Extent of Global Poverty and Hunger: Questioning the Good News Narrative of the Millennium Development Goals. *Third World Quarterly*, 37(5), 749-767.

High Representative (2008). "Climate Change and Security: Recommendations of the High Representative on Follow-up to the High Representative and Commission Report on Climate Change and International Security" (S412/08).

Holling, Crawford (1973). Resilience and Stability of Ecological Systems. *Annual Review of Ecology and Systematics*, 1-23.

Holling, Crawford and Gary Meffe (1996). Command and Control and the Pathology of Natural Resource Management. *Conservation Biology*, 10(2): 328-337.

Huysmans, Jef (2006). The Politics of Insecurity: Fear, Migration and Asylum in the EU. London and New York: Routledge.

ICISS (International Commission on Intervention and State Sovereignty) (2001). "The Responsibility to Protect.' Ottawa: International Development Research Centre.

IPCC (Intergovernmental Panel on Climate Change) (2012). Working Group II, Impacts, Adaptation and Vulnerability Special Report: "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation." Retrieved from: https://www.ipcc.ch/pdf/special-reports/srex/SREX_Full_Report.pdf.

IPCC (2014). "Fifth Assessment Report: Summary for Policymakers." In Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1-32.

Issack, Abdirahman Ali and Ahmed Yusuf (2010). "What Worked and What Didn't: Save the Children UK Ethiopia and Piloting Community Based Early Warning Systems in 3 Districts of Somali and Afar." ECHO and Save the Children United Kingdom. Addis Ababa. Accessed from: http://www.fao.org/fileadmin/user_upload/drought/docs/Community%20Based%20Early%20Warning%20System-Save%20the%20Children%20UK.pdf

Joseph, Jonathan (2013). Resilience as Embedded Neoliberalism: a Governmentality Approach. *Resilience*, 1(1), 38-52.

Joseph, Jonathan (2014). The EU in the Horn of Africa: Building Resilience as a Distant Form of Governance. *Journal of Common Market Studies*, 52(2), 285-301.

Juncos, Ana (2016). Resilience as the New EU Foreign Policy Paradigm: a Pragmatist Turn?.*European Security*, 1-18.

Kirtman, B., S.B. Power, J.A. Adedoyin, G.J. Boer, R. Bojariu, I. Camilloni, F.J. Doblas-Reyes, A.M. Fiore, M. Kimoto, G.A. Meehl, M. Prather, A. Sarr, C. Schär, R. Sutton, G.J. van Oldenborgh, G. Vecchi and H.J. Wang, 2013: Near-term Climate Change: Projections and Predictability. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Lakoff, Andrew (2015). Real-time Biopolitics: the Actuary and the Sentinel in Global Public Health. *Economy and Society*, 44(1), 40-59.

Larner, Wendy and William Walters (2004). "Introduction: Global Governmentality." In Global Governmentality: Governing International Spaces. Wendy Larner and William Walters, eds.) London: Routledge.

Lebaron, Genevieve and Alison Ayers (2013). The Rise of a 'New Slavery'? Understanding African Unfree Labour through Neoliberalism. *Third World Quarterly*, 34(5), 873-892.

Mayer, Maximilian (2012). Chaotic Climate Change and Security. *International Political Sociology*, 6(2), 165-185

McDonald, Matt (2008). Securitization and the Construction of Security. *European Journal of International Relations*, 14(4), 563-587.

McDonald, Matt (2012). The Failed Securitization of Climate Change in Australia. *Australian Journal of Political Science*, 47(4), 579-592.

Mearsheimer, John (2001). The Tragedy of Great Power Politics. New York: Norton.

Methmann, Chris and Angela Oels (2015). From 'Fearing' to 'Empowering' Climate Refugees: Governing Climate-induced Migration in the Name of Resilience. *Security Dialogue*, 46(1), 51-68.

Methmann, Chris and Delf Rothe (2012). Politics for the Day after Tomorrow: the Logic of Apocalypse in Global Climate Politics. *Security Dialogue*, 43(4), 323-344.

Murray, Robert (2012). Arctic Politics in the Emerging Multipolar System: Challenges and Consequences. *The Polar Journal*, 2(1), 7-20.

OECD (Organization for Economic Cooperation and Development). "Official Development Assistance 2015: Compare Your Country." Accessed October 4th, 2016 from:
http://www2.compareyourcountry.org/oda?cr=20001&cr1=oecd&lg=en&page=1

Oels, Angela (2005). Rendering Climate Change Governable: from Biopower to Advanced Liberal Government? *Journal of Environmental Policy and Planning*, 7(3), 185-207.

Oels, Angela (2012). "From 'Securitization' of Climate Change to 'Climatization' of the Security Field: Comparing Three Theoretical Perspectives." In Climate change, Human Security and Violent Conflict (Shaffran, Jurgen, Michael Brzoska, Hans Brauch, Michael Link, Janpeter Schilling, eds.) Berlin/Heidelberg: Springer.

European Commission (2011). "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Increasing the Impact of EU Development Policy: an Agenda for Change." Brussels, 13.10.2011 COM(2011) 637 final.

Pawlak, Patrick (2015). "Risk and Resilience in Foreign Policy." European Parliamentary Research Service: Members' Research Service. PE 568.349

Phaiju, Anup, Bej Debnarayan, Sagar Pokharel, and Ulla Dons (2010). "Establishing Community Based Early Warning System: Practitioner Handbook." Mercy Corps and Practical Action.

Pisano, Umberto (2012). "Resilience and Sustainable Development: Theory of Resilience, Systems Thinking, and Adaptive Governance." European Sustainable Development Network Quarterly Report, No. 26.

Radice, Holly, Aden Tekle (2011). "Technical Brief: Pastoral Community-based Early Warning Systems: Why Don't we Really Understand Them?" Regional Learning and Advocacy Programme for Vulnerable Dryland Communities. Accessed April 10th, 2016 from:
http://www.preventionweb.net/files/24203_24203technicalbriefcbewsscukfinal4t.pdf

Reid, Julian (2010). The Biopoliticization of Humanitarianism: from Saving Bare Life to Securing the Biohuman in Post-interventionary Societies. *Journal of Intervention and Statebuilding*, 4(4), 391-411.

Reid, Julian (2013). Interrogating the Neoliberal Biopolitics of the Sustainable Development-resilience Nexus. *International Political Sociology*, 7(4), 353-367.

Reuveny, Rafael (2007). Climate Change-induced Migration and Violent Conflict. *Political Geography*, 26(6), 656-673.

Richmond, Oliver (2006). "Emancipatory Forms of Human Security and Liberal Peacebuilding." *International Journal*, 62, 459.

Rio Declaration on Environment and Development. June 14, 1992, Rio de Janeiro. Principle 15.

Robertson, Morgan (2007). Discovering Price in All the Wrong Places: the Work of Commodity Definition and Price Under Neoliberal Environmental Policy. *Antipode*, 39(3), 500-526.

Rose, Nikolas (1993). Government, Authority and Expertise in Advanced Liberalism. *Economy and Society*, 22(3), 283-299.

Salehyan, Idean (2008). From Climate Change to Conflict? No Consensus Yet. *Journal of Peace Research*, 45(3), 315-326.

Salter, Mark (2013). "Introduction." In Research Methods in Critical Security Studies: an Introduction (Mark Salter and Can Mutlu, eds). New York: Routledge.

Sending, Ole and Iver Neumann (2006). Governance to Governmentality: Analyzing NGOs, States, and Power. *International Studies Quarterly*, 50(3), 651-672.

Shortle, James and Richard Horan (2005). Water Quality Trading. *Penn State. Environmental Law Review*, 14, 231.

Solana, Javier (2003). "A Secure Europe in a Better World: European Security Strategy." Klaus Schilder ve Tobias Hauschild, der., Civilian Perspective on Security Strategy.

Solana, Javier (2008). "Report on the Implementation of the European Security Strategy: Providing Security in a Changing World." S407/08, Brussels, 11.

Solana, Javier and European Commission. (2008). "Climate Change and International Security: Paper from the High Representative and the European Commission to the European Council." Office for Official Publications of the European Communities.

SWAC (Sahel and West Africa Club) (2013). "Global Alliance for Resilience Initiative: Regional Roadmap." Accessed July 20th, 2016 from: http://www.oecd.org/site/rpca/agir/

Trombetta, Julia (2008). Environmental Security and Climate Change: Analysing the Discourse. *Cambridge Review of International Affairs*, 21(4), 585-602.

UNDP (United Nations Development Programme) (1994). "Human Development Report." New York: Oxford University Press.

United States Department of Defense (2014). "Quadrennial Defense Review 2014." Retrieved from: http://archive.defense.gov/pubs/2014_Quadrennial_Defense_Review.pdf

Van Evera, Stephen (1997). Guide to Methods for Students of Political Science. Ithaca and London: Cornell University Press.

Villadsen, Kaspar and Ayo Wahlberg (2015). The Government of Life: Managing Populations, Health and Scarcity. *Economy and Society*, 44(1), 1-17.

Walker, Jeremy and Melinda Cooper (2011). Genealogies of Resilience from Systems Ecology to the Political Economy of Crisis Adaptation. *Security Dialogue*, 42(2), 143-160.

Walt, Stephen (1991). The Renaissance of Security Studies. *International Studies Quarterly*, 35(3), 211-239.

Welsh, Marc (2014). Resilience and Responsibility: Governing Uncertainty in a Complex World. *The Geographical Journal*, 180(1), 15-26.

White House (2002). "US National Security Strategy." Washington, DC: White House.

Williams, Michael (2003). Words, Images, Enemies: Securitization and International Politics. *International Studies Quarterly*, 47(4), 511-531.

Woldehanna, Kinf and Cordaid (2011). "Reinstating traditional rangeland management using community-managed DRR." In Disaster Risk Reduction in the Drylands of the Horn of Africa: Good Practice Examples from the ECHO Drought Cycle Management Partners and Beyond. Regional Learning and Advocacy Programme for Vulnerable Dryland Communities. Accessed January 13th, 2016 from: http://www.preventionweb.net/files/21183_reglapnewsletterfinal2011c1.pdf

Youngs, Richard (2014). "Climate Change and EU Security Policy: an Unmet Challenge" Brussels: Carnegie Europe.

Zebrowski, Chris (2009). Governing the Network Society: a Biopolitical Critique of Resilience. *Political Perspectives*, 3(1), 38pp.

Zwolski, Kamil (2012). The EU as an International Security Actor after Lisbon: Finally a Green Light for a Holistic Approach? *Cooperation and Conflict*, 47(1), 68-87.

Zwolski, Kamil and Christian Kaunert (2011). The EU and Climate Security: a Case of Successful Norm Entrepreneurship? *European Security*, 20(1), 21-43.