Linköping Studies in Arts and Sciences No. 819

Governing Climate Change under the Paris Regime

Meeting Urgency with Voluntarism

Maria Jernnäs

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Linköping 2021

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At the Faculty of Arts and Sciences at Linköping University, research and doctoral studies are carried out within broad problem areas. Research is organized in interdisciplinary research environments and doctoral studies mainly in graduate schools. Jointly, they publish the series Linköping Studies in Arts and Sciences. This thesis comes from the Department of Thematic Studies – Environmental Change.

Distributed by:

Department of Thematic Studies – Environmental Change
Linköping University
SE-581 83 Linköping

Author: Maria Jeronnäs

Title: Governing Climate Change under the Paris Regime

Subtitle: Meeting Urgency with Voluntarism

Edition 1:1

ISBN 978-91-7929-087-0 (print)

ISBN 978-91-7929-088-7 (PDF)

<https://doi.org/10.3384/9789179290887>

ISSN 0282-9800

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Department of Thematic Studies – Environmental Change

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Printed in Sweden by LiU-Tryck, 2021

Cover image: The author, with invaluable assistance from Julia Appelgren

Abstract

The climate is changing. As the global mean temperature continues to rise, the immense urgency of addressing the climate change crisis is evident. Since climate change entered the international political agenda in the 1980s, efforts to construct an effective global response have been organized under the United Nations Framework Convention on Climate Change (UNFCCC). Recently, this UN-led interstate diplomacy has been criticized for its inability to grapple with the polycentric, multiactor landscape of today. In this context, the 2015 Paris Agreement altered the formal context of global climate politics by institutionalizing a 'hybrid,' 'catalytic' regime where states are to outline, submit, and periodically enhance their Nationally Determined Contributions (NDCs) to the global response. While the continuous submission of NDCs is legally binding, their content and design are largely determined by states' ideas about the appropriate means and ends of climate action. The Paris regime also entails an unprecedented position for nonstate actors who were welcomed as an integral part of climate mitigation and adaptation and invited to pledge their contributions to the global effort through various UNFCCC-led initiatives. Through this supposedly catalytic design, the Paris regime pins its hopes on continuous increases in ambition levels and implementation rates of states' and nonstate actors' pledges to stave off the urgent crisis that is climate change. Global climate governance research has delved into the characteristics of this new architecture to examine how the disperse climate action pledges can be understood, aggregated, and enhanced, and how this hybrid design can ensure legitimate orchestration of a plurality of actors. While providing valuable suggestions for enhanced effectiveness of and participation in the Paris regime, this thesis suggests that post-Paris climate governance research to a large extent center around issues of improving the functions of the Paris model and that there is a lack of critical accounts of how the hybrid, catalytic, and largely voluntary Paris design rests upon and projects particular ways of ordering world politics.

To fill this gap, this thesis draws upon Foucauldian governmentality studies to critically examine how climate change is governed through voluntarism under the Paris regime and its political implications in terms of shaping the idea of what constitutes appropriate climate conduct. It asks how climate change is constructed as a problem for government by exploring the rationalities that inform climate governance under the Paris regime and the technologies through which governing is conducted. By illuminating the ideas and practices that underpin governing through voluntarism, the thesis contributes to a critical discussion on the means and ends of this mode of governing which, in turn, carves space for articulation of alternative problem descriptions and solutions. The thesis builds on four studies that, in turn, examine how climate change is problematized in states' NDCs in terms of climate policy discourses employed (Paper I) and suggested roles for the state in climate action (Paper II), and how climate action is mobilized through the NDC (Paper III) and UNFCCC-led initiatives to engage nonstate actors (Paper IV).

The thesis demonstrates that governing climate change through voluntarism under the Paris regime is characterized by efforts of coordination that emphasize a need for

quantifiable, comparable, and aggregable climate actions. Rather than merely a technical necessity for organizing disparate climate pledges, it argues that coordination is a governing strategy that posits climate action as a non-conflictual project of problem-management and shapes the idea of appropriate climate conduct by constructing states and nonstate actors as responsible actors charged with keeping their conduct in check. At the same time, the thesis also finds that the Paris regime leaves some room for resistance where alternative ideas on the appropriate means and ends of government can be advanced and debated. It argues, however, that the overwhelming emphasis on coordination shapes the field of possibilities for resistance by treating resisters as ‘those not yet convinced,’ rather than as expressors of fundamental political differences. In essence, by illuminating how current modes of government shape the idea of appropriate climate conduct, the thesis stresses that the urgency of the climate change challenge must not foreclose critical discussions on how governing climate change under the Paris regime is accomplished.

Keywords: global governance, governmentality, Paris Agreement, climate politics, Nationally Determined Contributions (NDC), nonstate actors

Sammanfattning

Klimatet förändras. I ljuset av den fortsatta ökningen av den globala medeltemperaturen är det akuta behovet att möta klimatkrisen uppenbart. Sedan klimatförändringar tog plats på den internationella politiska agendan under 1980-talet har försök att konstruera effektiva globala åtgärder organiserats under Förenta nationernas ramkonvention om klimatförändringar (United Nations Framework Convention on Climate Change, UNFCCC). På senare tid har denna FN-ledda, mellanstatliga diplomati blivit kritiserad för dess oförmåga att handskas med dagens polycentriska politiska landskap där många olika typer av aktörer florerar. Parisavtalet, som antogs år 2015, ändrade den formella kontexten för global klimatpolitik genom att institutionalisera en ”hybrid,” ”katalytisk” regim inom vilken stater förväntas formulera, skicka in och periodvis revidera sina nationella klimatplaner, så kallade Nationally Determined Contributions (NDC:er). Medan det kontinuerliga inlämnandet av NDC:er är juridiskt bindande bestäms deras innehåll och design till stor del av staters idéer om vad som är lämpliga metoder och mål för klimatåtgärder. Parisregimen innebär också en förändrad position för icke-statliga aktörer som nu välkomnas som en integral del av arbetet med mitigering av och anpassning till klimatförändringar. Icke-statliga aktörer uppmuntras att skicka in sina bidrag till det globala arbetet mot klimatförändringar genom olika UNFCCC-ledda initiativ. Genom denna katalytiska design sätter Parisregimen hoppet till en kontinuerlig ökning av staters och icke-statliga aktörers ambitionsnivåer och implementeringstakter för att avvärja klimatkrisen. Forskning inom global klimatpolitisk styrning har undersökt egenskaperna hos denna nya styrningsarkitektur och hur de varierade klimatbidragen kan förstås, aggregeras och ökas samt hur den hybrida designen kan säkerställa en legitim orkestrering av en stor mix av aktörer. Sådan forskning har bidragit med värdefulla förslag på hur effektiviteten och deltagandet kan ökas i Parisregimen. Denna avhandling menar dock att forskning om klimatpolitisk styrning post-Paris till stor del behandlar frågor om hur den nuvarande Parismodellen kan förbättras och att det finns en brist på kritiska studier av hur den hybrida, katalytiska och, till stor del, frivilliga Parisdesignen vilar på och projicerar specifika sätt att ordna världspolitiken.

För att fylla denna forskningslucka tar denna avhandling inspiration från Foucaults idéer om politisk styrning (på engelska, governmentality) för att kritiskt undersöka hur klimatförändringar styrs genom frivillighet under Parisregimen och dess politiska implikationer i termer av att forma idén om vad som konstituerar lämpligt klimatbeteende. Den undersöker hur klimatförändringar konstrueras som ett problem för styrning genom att utforska de rationaliteter som informerar klimatpolitisk styrning under Parisregimen och de teknologier genom vilka styrning genomförs. Genom att belysa de idéer och praktiker som ligger till grund för styrning genom frivillighet bidrar avhandlingen till en kritisk diskussion om styrningens metoder och mål vilket ger utrymme för artikulation av alternativa problembeskrivningar och lösningsförslag. Avhandlingen bygger på fyra studier som i tur och ordning undersöker hur klimatförändringar problematiseras i staters NDC:er vad gäller de klimatpolitiska diskurser som används (Artikel I) och de roller som föreslås för staten

(Artikel II) samt hur klimatåtgärder mobiliseras genom NDC:n (Artikel III) och UNFCCC-ledda initiativ för att engagera icke-statliga aktörer (Artikel IV).

Avhandlingen visar att klimatpolitisk styrning genom frivillighet karaktäriseras av tekniker för koordinering som framhåller behovet av klimatåtgärder som går att kvantifiera, jämföra och aggregera. Snarare än en teknisk nödvändighet för att organisera vitt skilda klimatbidrag, är koordinering en styrningsstrategi som presenterar klimatåtgärder som ett problemhanteringsprojekt i vilket stater och icke-statliga aktörer konstrueras som aktörer som är ansvariga för att hålla sitt eget beteende i schack. Samtidigt visar avhandlingen att det finns utrymmen för motstånd i Parisregimen där alternativa idéer om metoder och mål för styrning kan föras fram och diskuteras. Den överväldigande emfasen på koordinering formar dock möjlighetsutrymmet för motstånd genom att behandla motståndare som "ännu inte övertygade" snarare än som uttryck för fundamentala politiska skillnader. Genom att peka på hur nuvarande sätt att styra formar idén om lämpliga klimatåtgärder understryker avhandlingen att brådskan i klimatutmaningen inte får hindra kritiska diskussioner om hur klimatpolitisk styrning under Parisregimen genomförs.

Nyckelord: global styrning, governmentality, Parisavtalet, klimatpolitik, nationella klimatplaner (NDC), icke-statliga aktörer

List of Papers

The thesis is based on the following papers, which are referred to in the text by their Roman numerals I-IV.

- Paper I. Jernnäs, M. & Linnér, B.-O. (2019). A Discursive Cartography of Nationally Determined Contributions to the Paris Climate Agreement. *Global Environmental Change*, 55, 73-83. [Published with kind permission from Elsevier. Originally licensed under CC-BY-NC-ND]
- Paper II. Jernnäs, M., Nilsson, J., Linnér, B.-O. & Duit, A. (2019). Cross-National Patterns of Governance Mechanisms in Nationally Determined Contributions (NDCs) under the Paris Agreement. *Climate Policy*, 19(10), 1239-1249. [Published with kind permission from Taylor & Francis]
- Paper III. Jernnäs, M. (n.d.). Governing through the Nationally Determined Contribution (NDC): Five Functions to Steer States' Climate Conduct. [To be submitted]
- Paper IV. Jernnäs, M. & Lövbrand, E. (n.d.). Accelerating Climate Action: The Politics of Nonstate Actor Engagement in the Paris Regime. [Under review]

Author's Contributions to the Papers

- Paper I. Maria Jernnäs designed the study, collected, analyzed, and interpreted the empirical material, and took the lead in writing the article.
- Paper II. Maria Jernnäs participated in designing the study, collected the empirical material, conducted the interpretive analysis, and took the lead in writing the article.
- Paper III. Maria Jernnäs had sole responsibility for authorship.
- Paper IV. Maria Jernnäs participated in designing the study, collected, analyzed, and interpreted the empirical material, and took the lead in writing the article.

Funding Acknowledgement

This thesis was made possible by funding provided by the Swedish Research Council Formas through the project 'A Global Potluck: Cross-National Patterns of State Engagement and Performance in the New Landscape of International Climate Cooperation' (Grant No. 2011-779) and the Swedish Foundation for Strategic Environmental Research – Mistra through the 'Mistra Geopolitics' research program (Grant No. 2016/11 #5).

Acknowledgements

To my colleagues at the Department of Thematic Studies – Environmental Change at Linköping University. I feel very lucky to have spent my PhD period in an environment so full of expertise, collegiality, and warmth. A special thank you to all my colleagues at the Centre for Climate Science and Policy Research (CSPR) for the many thought-provoking seminars, laughter, and outbursts of fierce competitiveness in silly games at our Winter meetings.

I also want to express gratitude to my co-authors, whose experience and expertise have doubtlessly improved the papers in this thesis. To all known and unknown reviewers of different drafts of my texts at conferences, seminars, and in peer review processes, thank you for taking the time to provide your feedback. To the researchers involved in the first phase of Mistra Geopolitics, thank you for providing me a vibrant and challenging research context. A special thank you to the Mistra Geopolitics PhD students for bringing a perfect mix of joy and analytical mindsets to our course activities and get-togethers.

To my supervisors, Björn-Ola Linnér and Eva Lövbrand, without whom this thesis would not have seen the light of day. Björn-Ola, thank you for your enthusiasm, encouragements, and much laughter. I feel fortunate to have had the opportunity to learn from you and I know I am a better researcher for it. Thank you for always bringing a flood of new ideas and critical questions to our supervision meetings, but most of all, thank you for always believing in me. Eva, thank you for always challenging me to think again. It was you who first opened my eyes to the magical and mysterious world of global climate politics during my bachelor's studies in 2013 and your faith in me has been invaluable. You are one of the main reasons I pursued a PhD and for that I am forever grateful. To both of you, from the bottom of my heart: thank you.

To Mattias Hjerpe, thank you for answering my e-mail in 2015 asking if there was any chance of tagging along to the UN climate negotiations. It opened doors I never thought possible at the time. Despite my declaration that 'I will *not* pursue an academic career,' I am very happy you and others believed in me until I discovered the exciting world of research. To Lotten Wiréhn, whom I have turned to for advice on writing, how to deal with feedback, and general 'what am I doing?!!'-despair. Your support has been invaluable, and I celebrate our friendship. To Veronica Brodén Gyberg, thank you for your warmth, your calm, and your friendship. To Emelie Fälton, together with whom I was fortunate enough to tread the rocky road that is pursuing a PhD. Through endless conversations, identity crises, breakdowns, and pep talks – we made it! To Karin Eliasson, Anna Andersson, Mette Axelsson Bjerg, Emily Rodriguez, Sara Gottenhuber, and all past and present PhD students at Tema M, thank you for being a source of friendship, laughter, and stress-relief. I cherish the kind-heartedness of our PhD community.

Last, I want to thank my friends and my family. To my mom, for continuously reminding me that 'good enough' brings more joy to my life. To my dad, for always enthusiastically supporting me. To my brother Micke and my sister Johanna, for being the best, silliest, most loving siblings.

To Filip, thank you for standing by my side through highs and lows. Your belief in me and my capacity has carried me through this experience. I am so happy I get to share my life with you. To Lykke, mitt hjärta. Compared to you, nothing else matters. Jag älskar er båda.

Linköping, November 2021
Maria Jernmäs

To Lykke; the future.

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We have a blueprint: the 2030 Agenda, the Sustainable Development Goals and the Paris Agreement on climate change. The door is open; the solutions are there.

UN Secretary-General António Guterres¹

1 Introduction

Climate change is the defining challenge of our time. In 2020, a 1.2 °C increase in global mean temperature compared to pre-industrial times was recorded, which already puts people and ecosystems at risk due to increased frequency and intensity of extreme weather events and increased sea-level rise and desertification (UNEP, 2020; WMO, 2020). Some positive trends can be observed: a possibly stagnating increase in greenhouse gas (GHG) emissions; growing investments in non-fossil fuel energy sources; and heightened political, business, and civil society attention to climate change. Nevertheless, efforts to halt the increase in global mean temperature have yet to demonstrate results in line with the 2015 Paris Agreement’s objective of limiting global warming to ‘well below 2 °C’ and ‘to pursue efforts to limit the temperature increase to 1.5 °C’ (UNFCCC, 2015a). As bluntly put in the UN Environment Programme’s 2020 Emissions Gap report, which assesses the gap between current policies and 1.5- or 2 °C-compliant emissions pathways: ‘Are we on track to bridging the gap? Absolutely not.’ (UNEP, 2020, p. xiv).

While the phenomenon of climate change has engaged politicians, researchers, and interest groups in the international sphere since the 1980s, constructing an effective global response to climate change has proved immensely difficult. The adoption of the 2015 Paris Agreement represents the latest governing invention to that end, altering the formal context of international climate politics and policymaking by deciding on a new, ‘catalytic’ model for interstate cooperation based on states’ submissions of Nationally Determined Contributions (NDCs) (Chan et al., 2021; Hale, 2020). Through cycles of review and progression

¹ Speech on ‘The State of the Planet’ by UN Secretary-General António Guterres, Dec 2, 2020. Available at <https://www.un.org/sg/en/content/sg/speeches/2020-12-02/address-columbia-university-the-state-of-the-planet> (Accessed May 6, 2021)

of NDC ambitions as well as inducement of nonstate climate actions, the Paris regime combines self-determined pledges with mechanisms for international oversight to bring about stringent climate action. Heralded as a diplomatic success (Dimitrov, 2016), scholars, media, nonstate actors, and politicians have praised the agreement's universality and mitigation potential (Falkner, 2016; Maljean-Dubois, 2016). Its allegedly hybrid, catalytic logic has been portrayed as central to constructing a functional international agreement in the decentralized climate governance landscape of the 21st century (Bäckstrand et al., 2017; Falkner, 2016; Hale, 2016; Keohane & Oppenheimer, 2016).

Institutionalizing a shift from the top-down, state-centric logic of the 1997 Kyoto Protocol, the Paris Agreement suggests the necessity of bringing 'all hands on deck' (Hale, 2016) to incite stringent climate action. To bring about the 'rapid and far-reaching transitions' considered necessary by the IPCC (2018, p. 15) to halt the 'global emergency'² that is climate change, the Paris regime pins its hopes on processes that mobilize incremental action, build trust among state and nonstate actors, and allow for a dynamic evolution of ambitions and strategies over time (Chan et al., 2021; Hale, 2020). This change in climate governance practice needs to be viewed in the context of an ongoing debate within global governance studies on the ineffectiveness of addressing climate change through conventional interstate mechanisms for problem-solving (Biermann, 2014). Gaining ground especially after the failure of states to adopt a new climate agreement in Copenhagen in 2009, scholars of global climate governance have increasingly emphasized the need for climate governance to reflect the 'polycentric' (Jordan et al., 2015) or 'fragmented' (Biermann et al., 2009) world order. In this respect, the Paris Agreement provides new empirical ground for studies of global climate governance. Efforts have gone into analyzing challenges related to assessing the emissions reduction potentials of state and nonstate climate action (Chan et al., 2018; Hale et al., 2020; Lui et al., 2020; Rogelj et al., 2016), the merits and pitfalls of efforts to orchestrate climate action under the Paris regime (Bäckstrand & Kuyper, 2017; Chan & Amling, 2019; Widerberg, 2017), and how to effectively organize international oversight mechanisms (Hermwille et al., 2019).

While certainly providing important insights into the dynamics of global climate politics, these studies largely center around issues of how to improve the functions of the Paris design rather than critically examining the core ideas on which it is based (Geden, 2016). By emphasizing the need for strengthened partnerships and networked solutions, conflict is reduced to that which can be ameliorated through cooperation which, in turn, risks obscuring the existence of profound power struggles in post-Paris climate governance (Cox, 1981; Walters, 2004). The solutions, as pointed out in the introductory quotation, 'are there,' constructing post-Paris climate governance as a project of achieving effective implementation. By contrast, this thesis claims that meeting the tremendous urgency of unfolding climate change with a global response largely based on voluntarism warrants critical interrogation. Previous critical research has highlighted the risks of this voluntary approach by arguing

² Speech by UNFCCC Executive Secretary Patricia Espinosa, Mar 5, 2020. Available at <https://unfccc.int/news/climate-crisis-needs-truly-collective-response-un-climate-chief> (Accessed May 6, 2021)

that it institutionalizes a belief in incrementalism based on weak enforcement mechanisms and abandonment of equity considerations (Allan, 2019; Cléménçon, 2016). What is lacking, however, is an empirically grounded analysis of the ideas that underpin governing under the Paris regime and how they materialize in its operationalization. To fill this gap, this thesis critically examines how climate change is governed through voluntarism under the Paris regime. While the Paris Agreement does stipulate legally binding obligations for states, such as preparing, communicating, and maintaining NDCs, the term ‘voluntarism’ is used to draw attention to the ideas of self-determined mobilization inherent in the Paris design. Rather than a pragmatic consequence of a polycentric political landscape, this thesis approaches voluntarism as a particular way of governing, whose logic, means, and goals warrant critical scrutiny. Following a line of inquiry that can be denoted as climate governmentality studies, the thesis directs attention to how governing climate change through voluntarism is accomplished (Bulkeley, 2016; Lövbrand & Stripple, 2014).

Inspired by French philosopher Michel Foucault, governmentality studies engage with the ways in which a phenomenon is constituted as a problem of government, how it is made governable, to what end, and which techniques of government are proposed to intervene in the problem (Lövbrand & Stripple, 2015; Miller & Rose, 2008; Walters, 2012). ‘Government’ does not refer exclusively to the actions of a state upon its citizens, but to the various ways in which conduct is conducted toward a desirable end (Foucault, 2008). By turning attention to seemingly taken-for-granted practices and knowledges, governmentality studies seek to illuminate power relations inherent in all forms of government to allow for the articulation of alternative problem descriptions and solutions (Bacchi, 2012; Triantafyllou, 2004; Walters, 2012). The governmentality approach of this thesis is operationalized through the analytical concepts of problematizations, rationalities, and technologies, which illuminate how climate change is constructed as a problem for government by examining how it is represented and acted upon (Miller & Rose, 2008). In this thesis, this implies an analysis of the constructions of climate change as a problem for government in states’ NDCs and how the NDC and UNFCCC-led initiatives to engage nonstate actors work to mobilize voluntary climate action.

1.1 Aim and Research Questions

Addressing climate change is one of the most urgent challenges of the 21st century. To this end, the near-universal Paris Agreement constitutes the main instrument through which climate change is to be governed until the year 2030. It institutionalizes what has been described as a hybrid, catalytic regime which couples state and nonstate climate action pledges with mechanisms for international oversight to mobilize actors toward the Paris goals. In this context, the overall aim of this thesis is to critically examine how climate change is governed through voluntarism under the Paris regime and its political implications in terms of shaping the idea of what constitutes appropriate climate conduct. Specifically, the thesis examines how climate change is problematized by illuminating the rationalities that inform

global climate governance post-Paris and the technologies through which governing is conducted. Drawing upon Foucault-inspired governmentality studies, the thesis puts post-Paris power relations center stage to understand how governing through voluntarism rests upon and projects particular ways of ordering world politics. As such, it seeks to enhance the ‘criticize-ability’ (Walters, 2012, p. 2) of post-Paris climate governance and to widen the space for the articulation of alternative problem descriptions and solutions.

To fulfil the aim, the thesis is informed by two research questions:

1. How is climate change constituted as a political problem in states’ NDCs, in terms of climate policy discourses employed (Paper I) and suggested roles for the state in climate action (Paper II)?
2. How is climate action mobilized through the discursive and material practices of the Nationally Determined Contribution (NDC) (Paper III) and the UNFCCC-led initiatives to engage nonstate actors under the Paris regime (Paper IV)?

The thesis consists of four papers which together contribute to fulfilling the aim by addressing the different research questions. Paper I analyzes the NDCs to examine the ideas that inform states’ climate actions post-Paris. The paper maps the ways states gather around different climate policy storylines and examines the extent to which the emerging discourse coalitions reconfigure traditional geopolitical patterns of states in international climate politics. The NDCs are further analyzed in Paper II, where the suggested roles for the state in climate action are examined by mapping the governance mechanisms that states propose to implement their respective NDCs. Cross-national patterns of suggested roles for the state are then compared to conventional state patterns. Paper III explores how climate action is mobilized through the NDC. The paper identifies five functions for the NDC by examining how states articulate ideas about governing through the NDC in their submissions to the NDC negotiations post-Paris. Finally, Paper IV turns attention to nonstate actors under the Paris regime. The paper explores the technologies through which nonstate actors are governed in UNFCCC-led initiatives to engage nonstate climate action, and what their effects are in terms of shaping the field of possibilities for nonstate actors. Together, the four papers delve into some of the core parts of the Paris regime to explore how governing through voluntarism is accomplished.

1.2 A Note on Key Concepts

This thesis makes use of ideas from climate governmentality studies to study how climate change is governed through voluntarism under the Paris regime. While the conceptual, theoretical, and methodological approaches of this thesis will be detailed in the individual

chapters below, some of the key concepts are briefly introduced here to set the scene for the following analysis.

First, the concept of *governing* is central. Inspired by Foucault's neologism of 'governmental rationality,' governing is perceived in a broad sense as the 'conduct of conduct' of a particular group of actors (Foucault, 2008, p. 186). While governmentality has been taken to signify different things, in this thesis it is viewed as a guiding lantern for analyzing any 'form of activity aiming to shape, guide or affect the conduct of some person or persons' (Gordon, 1991, p. 2). When addressing the research questions, the thesis seeks to illuminate the process through which a phenomenon is constructed as a problem for government (*problematization*) by examining the knowledge claims that underpin this construction (*rationalities*) and the sets of techniques through which this problem can be intervened upon (*technologies*) (Miller & Rose, 2008). By illuminating and critically interrogating the ideas and practices through which governing is accomplished, these concepts seek to 'bracket' seemingly taken-for-granted practices and make space for the articulation of alternative modes of governing (Larner & Walters, 2004).

Second, the thesis sets out to explore how climate change is governed under the Paris *regime*. Rather than limiting the study to an analysis of the Paris Agreement, the term regime is used to refer to the multitude of ideas and practices of governing that are manifested in relation to the implementation and achievement of the Paris Agreement. Inspired by the broad understanding of governing outlined above, referring to the Paris regime seeks to move away from any pre-determined ideas on where, how, and by whom governing is practiced. As such, it is a necessarily wide definition which seeks to encompass – and allow for the emergence of – a variety of subjects, spaces, ideas, and forms of governing. This thesis' starting point is that one core idea of governing under the Paris regime is that of voluntarism, and that exploring how voluntarism is imagined and practiced can contribute to an enhanced understanding of some of the Paris regime's fundamental elements.

1.3 Thesis Outline

The thesis is organized as follows. First, previous research on the construction of a global response to climate change is outlined by pointing to the ways in which climate change has been constructed as a problem for government under the UNFCCC and its protocols. Next, the theoretical starting points of governmentality studies are outlined and the analyses that such an approach enables are discussed. In chapter four, the research design of the thesis is presented. The ontological and epistemological starting points of the study are laid out, and the empirical material as well as the core components of the analytical processes are presented. Chapter five presents the key insights from the four papers included in this thesis, including the climate policy storylines and roles for the state expressed in the NDCs and the means through which the NDC and UNFCCC-led initiatives to engage nonstate actors seek to mobilize climate action. In chapter six, the results are discussed by bringing forth the argument that governing through voluntarism under the Paris regime is

characterized by efforts of coordination that reward quantifiable, comparable, and aggregable climate actions. The chapter advances the claim that this mode of governing risks obscuring the presence of fundamental political struggles on the appropriate ends and means of governing, and emphasizes the necessity for global climate governance research to continuously pose critical questions about the ordering effects of governing – especially so in the context of urgency.

2 Constructing a Global Response to Climate Change

Climate change has been described as a ‘wicked’ policy problem (Rittel & Webber, 1973). Its universal yet non-uniform causes and effects have been drawn on to rationalize a global response. This global response has taken different forms since climate change was constructed as a problem for international politics in the 1980s. Differing views on the appropriate definition and scope of ‘global’ and ‘response’ have been – and still are – debated across actors and institutional and spatial scales. One of the core platforms for outlining what the global response to climate change ought to be is the United Nations Framework Convention on Climate Change (UNFCCC) which, since its adoption in 1992, has provided a sphere within and through which the boundaries of global climate governance are negotiated. Over the three decades that the UNFCCC has brought together states and nonstate actors, the scope of climate action and the emphasis placed on different climate-related issues have fluctuated. While at the outset, climate change was mainly perceived as an environmental issue (Mintzer & Leonard, 1994), the UNFCCC has successively extended its foci to include issues such as finance, trade, gender, and loss and damage. To some extent, this reflects growing knowledge about the causes and effects of climate change in the scientific community. What this thesis assumes, however, is that how a phenomenon is problematized, i.e., constructed as a problem for government, always draws upon particular forms of knowledge and, in turn, legitimizes particular actions and actors. Rather than assuming that the foci and techniques of the UNFCCC are merely a reflection of current scientific knowledge of climate change, this thesis suggests that constructing climate change as a particular problem for international or global politics is historically contingent and produces certain effects. Hence, when asking how climate change is governed under the Paris regime, it is fruitful to place today’s political and scholarly debates within the larger context of the contentious issues that have influenced the construction of a global response to climate change under the UNFCCC since the early 1990s.

This chapter does not seek to provide a comprehensive history of the evolution of the UNFCCC. Others have already offered such studies (see, e.g., Gupta, 2010; Kuyper et al., 2018). Rather, the main debates that have surrounded the construction of the global

response to climate change are outlined, discussing how different modes of government have been rationalized and disputed at different times and in different spaces. The chapter is divided into three parts which roughly represent three lines of previous research on questions of how to globally govern climate change through the UNFCCC. First, the emergence of the UNFCCC and the then largely state-centric regime analyses of how to govern climate change are outlined. Second, the pluralization of actors, arenas, and forms of governance in early 21st century UNFCCC practices and the simultaneous shift in academic analyses toward a global governance of climate change are discussed. Finally, post-Paris literature studying how climate governance can and ought to be conducted under the Paris regime is outlined.

The chapter argues that global climate governance has been informed by different rationalities of government at different times, ranging from state-centric liberal institutionalism in the early days of the UNFCCC, through a turn toward market-based, ‘flexible’ governance mechanisms, to the soft, orchestrated modes of governance enshrined in the Paris Agreement (Kuyper et al., 2018). While the issue of how to govern climate change globally has been the topic of academic debate since the 1980s and has certainly not faded with the adoption of the Paris Agreement, this thesis argues that what is missing is a careful empirical examination of the particular rationality (or rationalities) that informs governing climate change through voluntarism under the Paris regime.

2.1 Governing Climate Change through an International Regime

Since its adoption in 1992, the UNFCCC has provided a frame within which climate change can be debated as a problem for international politics. Over the last three decades, two agreements – the 1997 Kyoto Protocol and the 2015 Paris Agreement – have been adopted to add more detail to the aspirational language of the Convention and numerous decisions, reports, and statements have been produced during countless negotiation hours.

The institutionalization of climate change as a problem for global politics has also generated a vast amount of research on how climate change could and should be governed at a global level. In the early days of the UNFCCC, scholars predominantly advanced a regime analysis approach to understand the formation of a global convention, the interstate conflicts that permeated the negotiations, and the roles of international institutions such as the Intergovernmental Panel on Climate Change (IPCC) in influencing the global response to climate change (Stripple & Bulkeley, 2014). As argued by Paterson (1996), liberal institutionalist perspectives provided answers and clues as to why and how states identified climate change as a problem in need of international coordination and how states’ roles and perceived self-interests are formed and change through institutional arrangements, such as the UNFCCC. Perhaps as a product of this perspective, the road toward adoption of the UNFCCC is often traced through conferences, the moves of international organizations, and individual states’ domestic preferences in the 1970s and 1980s. Described as a ‘major shift’ in the prioritization of climate change (Paterson, 1996), the 1972 Stockholm

Conference on the Human Environment brought together developed and developing states to discuss international environmental problems and their relationships to issues of economic growth and human well-being (UN, 2021). Further advancing the conception of climate change as more than merely an environmental issue, the 1985 Villach Conference made recommendations for further research both on causes and impacts of climate change and on social and economic aspects of potential policy solutions (Paterson, 1996). The interlaced chiseling out of scientific knowledge and a global response were further emphasized with the establishment of the IPCC in 1988, seeking to provide state-of-the-art assessments of scientific knowledge on climate change and suitable response strategies for addressing it (IPCC, 2021; Paterson, 1996). As political interest in climate change surged in the late 1980s and was influenced by what Gupta (2010, p. 642) refers to as a ‘post-cold war optimism’ regarding the potential of international problem-solving, the UN General Assembly agreed in 1990 to mandate the initiation of negotiations on a framework convention on climate change, which eventually resulted in the 1992 adoption of the UNFCCC (Gupta, 2010; UNGA, Res. 45/212, 1990).

Organizationally, the UNFCCC has near universal membership, employs one-state-one-vote rules, operates (largely) through consensus decision-making, and features a secretariat to facilitate intergovernmental negotiations and provide technical expertise to the parties to the UNFCCC³. While only states (and – as an exception – the EU) can become ‘Parties’ to the Convention, i.e., ratify it and have a vote, other types of actors, referred to in the Convention as ‘non-Party stakeholders’ can be admitted as observers, implying an opportunity to participate in some meetings, negotiations, and events organized through the UNFCCC. To date, the UNFCCC has 197 Parties, including 196 states and the EU. The decision-making body of the UNFCCC, the Conference of the Parties (more commonly known as the COP), meets in November or December every year to decide on further steps to take in outlining the global response. The COPs and the intersessional meetings at the UNFCCC headquarters in Bonn in May every year bring together thousands of participants, including national delegations and a wide variety of observers, such as representatives from business, local governments, nongovernmental organizations, academia, and the media.

Outlining a global response to climate change has proved immensely challenging, evident not least in the continued growth in GHG emissions despite decades of interstate negotiations on appropriate solutions (UNEP, 2020). Paterson (1996) outlines two main lines of contention that permeated the negotiations of the UNFCCC in the early 1990s, and which still feature in today’s discussions on how best to govern a global response under the UNFCCC: the top-down versus bottom-up conflict and the North-South conflict. The former refers to differing views on the appropriate scope and means of international coordination of a global response to climate change, and materialized in heated discussions on whether developed countries’ emissions reductions should be governed through internationally agreed reduction levels – a so-called targets-and-timetables approach – or through

³ UNFCCC website. Available at <https://unfccc.int/about-us/about-the-secretariat> (Accessed May 6, 2021)

national emissions reduction pledges submitted for international oversight – a so-called pledge-and-review approach (Paterson, 1996). The latter conflict touches on long-standing tensions between developing and developed countries on issues of dependency and responsibility. In the sphere of global climate politics, this conflict manifests itself in disagreements on the appropriate division of responsibility for causing and acting on climate change as well as appropriate forms of financial, technological, and capacity support to developing countries to enable their development while minimizing their future emissions (Gupta, 2010; Paterson, 1996; Stripple & Bulkeley, 2014), captured in the UNFCCC principle of ‘Common But Differentiated Responsibilities and Respective Capabilities’ (CBDR&RC) (FCCC, Art. 3.1).

While the creation of the UNFCCC represented an important political milestone, it was suggested from the outset that, in order to properly address climate change, more details regarding who should do what and when were needed (Grubb et al., 1999; Gupta, 2010). Consequently, negotiations on a protocol to the UNFCCC commenced at COP1 in Berlin in 1995, subsequently resulting in the 1997 Kyoto Protocol (Grubb et al., 1999). Agreeing on the approach through which developed countries’ emissions reductions should be governed proved to be an arduous task. While the US argued vociferously for establishing a medium-term goal to be ‘met through maximum flexibility in the selection of implementation measures,’ i.e., enabling the use of market-based approaches to ensure the cost-effectiveness of climate action (Grubb et al., 1999, p. 54), the EU advocated for internationally agreed reduction targets for each developed country in combination with a timeline for achieving results (Grubb et al., 1999; Gupta, 2010). In the end, the targets-and-timetables approach prevailed, establishing a 5% emissions reduction target compared to 1990 levels with individual emissions reduction targets for each developed country. However, the Kyoto Protocol also institutionalized ‘flexibility,’ which, according to Bernstein (2001, p. 118), is based on the liberal environmentalist idea ‘that assigning property rights to emissions and creating a market that allows them to be transferred will enable emission reductions to be achieved where it is most efficient, or cheapest, to do so.’ Hence, the US advocacy for ‘maximum flexibility’ proved successful and resulted in the establishment of mechanisms for reducing emissions through the market, such as emissions trading among developed countries and developed country investments in emission reducing activities in developing countries in exchange for ‘carbon credits’ through the Clean Development Mechanism (CDM) (Grubb et al., 1999).

The diverging views on if and how countries’ different responsibilities for causing climate change should be reflected in the convention are captured in the UNFCCC’s distinction between Annex I and non-Annex I countries (Dasgupta, 1994). The Annexes largely correspond to what, at the time, were considered developed and developing countries, respectively, asking Annex I countries to ‘take the lead’ on mitigating climate change and providing support for non-Annex I countries (Gupta, 2010). This initial distinction has proved resilient and has been the source of enormous contention. While the Annexes serve as an important reminder of the historical responsibility for causing climate change, it

would, however, be too simplistic to describe it as a purely North-South conflict. As demonstrated in the above discussion of appropriate approaches to outlining developed countries' emission reductions, there were important divisions within the group of Northern countries. Likewise, the 'global South' refers to a large number of states with varying degrees of economic development and different demographic compositions, energy mixes, access to natural resources, and vulnerabilities to climate change impacts and response measures (Grubb et al., 1999; Paterson, 1996). One indicator of this wide variety of state prerequisites and interests is the many negotiating groups through which states have attempted to advocate their positions in the intergovernmental negotiations, bringing together states with perceived similar interests based on level of development (e.g., non-EU developed countries in the Umbrella Group and least developed countries in LDCs), economic interests (e.g., oil exporting countries in OPEC⁴), and vulnerability to climate change (e.g., small island developing states in AOSIS⁵), as well as regional groups (e.g., the African Group) (Gupta, 2010; Vihma et al., 2011).

What the above sections show is that the emphasis in the early days of the UNFCCC was largely on the roles of states as governors of climate change (Hale & Roger, 2013; van Asselt & Zelli, 2014). The Kyoto Protocol was, in this respect perceived as 'very much an agreement struck by governments' (Grubb et al., 1999, p. 111), pointing to the centrality of the UNFCCC as a node of climate governance (Kuyper & Bäckstrand, 2016). Finding policy solutions that cater sufficiently to the diverging positions of states has, however, proved tremendously challenging and has occupied scholars and practitioners of climate governance from the outset. While enshrined as a core principle of the UNFCCC, the difficulties related to operationalizing CBDR&RC in the context of consensus decision-making have contributed to arguments about a 'gridlocked' multilateral process that will continue to struggle to agree on anything but a lowest common denominator (Bäckstrand & Kuyper, 2017; Victor, 2011). As a case in point, the US withdrew from the Kyoto Protocol in 2001, arguing it was an 'unfair and ineffective means of addressing global climate change concerns' as it exempts developing countries from emissions reduction commitments (Bush, 2001). The Protocol, which covers the period 2008-2012, did, however, eventually enter into force in 2005 and negotiations on a second commitment period commenced soon thereafter, along with negotiations on long-term climate action with the aim of adopting a new agreement at COP15 in Copenhagen in 2009.

Similar to previous debates on the form and scope of the global response, negotiations on a new agreement at COP15 centered around issues of the legal nature of such an agreement and the appropriate scope of developed and developing country mitigation obligations (Christoff, 2010). In an attempt to secure common ground, a smaller number of states, including the US, China, India, and Brazil, decided to negotiate a new text, the 'Copenhagen Accord,' behind closed doors. This departure from the UNFCCC's conventional procedure of inclusive negotiations infuriated several countries, which perceived the move

⁴ Organization of Petroleum Exporting Countries

⁵ Alliance of Small Island States

as inequitable and excluding (Christoff, 2010). After a lengthy plenary debate, the COP ended up taking ‘note’ of – rather than adopting – the Copenhagen Accord and drew to a close (Gupta, 2010). The events in Copenhagen have been described as a ‘failure’ of the multilateral process (Rayner, 2010) as they ‘highlighted deep-seated, longstanding problems with the UNFCCC’ (Christoff, 2010, p. 638). The inability of states to find agreement on future climate action and the conflicts over the appropriate form and scope of nonstate actor participation in the COPs (Hadden, 2015) spurred debate regarding the suitability of the UN system as the framework for outlining a global response to climate change as well as the role and contribution of climate governance scholarship (Bäckstrand & Lövbrand, 2015; Hoffmann, 2011; Rayner, 2010). We now turn to this debate.

2.2 Broadening the Who, the What, and the How: Global Governance Studies and the Global Response

In light of the struggles to agree on, ratify, and implement the Kyoto Protocol and the failure of states to adopt a successor agreement in Copenhagen in 2009, arguments were heard regarding the inefficiency of the ‘gridlocked’ multilateral UNFCCC process in terms of delivering climate change action (Hale & Roger, 2013). Criticism was directed toward the seemingly inflexible state-driven UNFCCC process, which seemed paralyzed by its consensus rules and long-standing conflicts between different groups of states. Scholars increasingly suggested that the global response to climate change needed to respond in a better way to the dynamic, globalized, plural landscape of the 21st century (Biermann et al., 2009; Rayner, 2010). While some suggested that this meant a smaller role for the UNFCCC as other arenas for action rose to prominence (Hoffmann, 2011), others argued for a reinvigorated intergovernmental regime that could make use of the multiplicity of actors engaged in climate action across the world (Keohane & Victor, 2011; Okereke et al., 2009). Shifting the emphasis from a narrow focus on the interstate negotiations toward the plethora of spaces where climate action is formed and conducted mirrors a broader shift in studies of world politics, where the state-centrism of traditional International Relations (IR) theories has been questioned by an emerging field of global governance studies (Biermann, 2014; Dingwerth & Pattberg, 2006). Rather than assuming the state to be the non-disputed locus of power, global governance studies refute any *a priori* hierarchy among states and nonstate actors. Instead, they seek to understand the multiple forms and locales of authority in the global sphere (Dingwerth & Pattberg, 2006; Okereke et al., 2009) by studying the ‘regime complex’ (Keohane & Victor, 2011) or ‘architecture’ (Biermann et al., 2009) of global climate governance. This has implied a proliferation of studies of nonstate actors’ involvement in the UNFCCC (e.g., Kuyper & Bäckstrand, 2016; Nasiritousi et al., 2016; van Asselt & Zelli, 2014) as well as climate action beyond the interstate regime (e.g., Bernstein et al., 2010; Hoffmann, 2011; Rayner, 2010). To understand this new, complex governing landscape, several concepts derived from ideas of global governance studies have been proposed. One such idea is that of orchestration.

Orchestration refers to an ‘indirect mode of governance that relies on inducements and incentives rather than mandatory controls’ (Abbott, 2018, p. 188). By inducing action through ‘intermediaries,’ the ‘orchestrator’ softly governs ‘targets’ toward the desired goal without the use of coercive means (Abbott, 2018). Rather than portraying a purely polycentric, decentralized policy landscape subjected entirely to bottom-up governance, orchestration literature suggests the importance of coordination by particular authoritative actors, which in turn ‘forc[es] scholars to consider a form of institutionalization that blurs the conventional distinctions between public and private, intergovernmental and transnational actors’ (Hale & Roger, 2013, p. 61). The issue of constructing a global response to climate change is, according to Hale and Roger (2013), particularly suited to interpretation through an orchestration lens due to the fragmented climate policy landscape. By employing orchestration as a way to understand how climate change governance can and should be conducted, they argue, we can move past the long-standing conflict on top-down versus bottom-up forms of governing as orchestration suggests a ‘more nuanced range of responses to collective action problems’ (Hale & Roger, 2013, p. 79). Similarly, Abbott (2018) suggests that orchestration is already a distinct component of climate governance today, and several scholars have suggested the UNFCCC’s potential to act as an orchestrator of climate action as a way of evolving with the polycentric landscape (Hale & Roger, 2013; van Asselt & Zelli, 2014). In light of the hybrid design of the Paris Agreement, orchestration remains a significant lens for examinations of various forms of agency and authority in global climate governance.

2.3 Universal, Dynamic, and Insufficient? ‘Catalyzing’ Climate Action through the Paris Agreement

Since the dust settled in Paris in mid-December 2015, scholars of global climate governance have turned their attention to new, intriguing governing puzzles prompted by the Paris Agreement design. While many scholars hailed the new agreement as an important breakthrough in the UNFCCC process, they also made it clear that the work on constructing an effective agreement was by no means finished (Falkner, 2016; Keohane & Oppenheimer, 2016).

The Paris Agreement requests that states prepare, communicate, and maintain their Nationally Determined Contributions to the global effort of mitigating and adapting to climate change (Art. 4.2). It sets in motion an iterative process of NDC submission and a quinquennial ‘global stocktake’ to evaluate the collective progress toward achieving the Paris goals (Art. 14.1). Seeking to induce action over time by introducing a ‘pacemaker’ (Hermwille et al., 2019), the Paris Agreement requests that states’ NDCs represent a progression from their current NDCs, and rests on mechanisms for reporting and transparency to nudge states toward increased ambition. As such, it diverges from the targets-and-time-tables approach enshrined in the Kyoto Protocol by leaving it largely to states to determine and argue for what they consider their ‘highest possible ambition, reflecting [their] common

but differentiated responsibilities and respective capabilities, in the light of different national circumstances' (Art. 4.3). In the years following the adoption of the Paris Agreement, negotiations on the so-called Paris Rulebook engaged both state and nonstate actors. Finally agreed at COP24 in Katowice in 2018 (except a few still outstanding issues), the rulebook specifies, among other things, guidelines and requirements regarding the preparation and reporting of states' subsequent NDCs and the process for review for the global stocktake (CMA, 2018).

Scholarly literature post-Paris reflects the dispersed nature of the agreement. Efforts have been made to quantify and aggregate state and nonstate actors' emissions reduction pledges (Hsu et al., 2019b; Kuramochi et al., 2020; Lui et al., 2020; Rogelj et al., 2016), assess the contributions of specific countries or groups of countries (den Elzen et al., 2019), and examine the impact of the agreement on sectoral issues such as land use, land use change, and forests or energy (Forsell et al., 2016; Vandyck et al., 2016). Scholars have also engaged with issues of how climate change can and should be governed through the Paris Agreement, pointing to its 'hybrid' (Bäckstrand et al., 2017) or 'catalytic' (Chan et al., 2021; Hale, 2020; Hermwille et al., 2019) design, combining elements of top-down governance with bottom-up pledges and seeking to mobilize both state and nonstate climate action over time. While the analytical foci of post-Paris global climate governance research have been varied, two prominent topics can be identified: universality – how can issues of differentiation be understood in a system that brings all states under one common framework and, in addition, ties nonstate climate action tighter to the interstate regime?; and dynamism – in what ways can the hybrid, catalytic Paris model incite action and evolve with the realities of a changing climate?

The universality of the Paris Agreement, i.e., extending expectations on climate action implementation to all states, rather than only developed countries, has been described as one of the big successes of the agreement (Falkner, 2016). While disagreements on the appropriate assignment of responsibility and division of labor have haunted the interstate negotiations since before the adoption of the UNFCCC (Grubb et al., 1999), the Paris model is portrayed as a way to relieve some of the tensions surrounding the binary division of states by institutionalizing a form of 'self-differentiation' where states are asked to outline their climate actions in light of their national circumstances (Dimitrov, 2016; Falkner, 2016; Maljean-Dubois, 2016). The NDC design has, however, also been accused of 'officially abandon[ing] the idea of an international equitable burden-sharing arrangement' since it arguably shifts attention away from developed countries' historic emissions and instead emphasizes constraints on all states' current and future emissions (Cléménçon, 2016, p. 3). A second element to the universality of the Paris Agreement is its enmeshing of state and nonstate climate action as integral parts of global climate governance, which has led scholars to suggest that what we are seeing is a hybrid climate regime (Bäckstrand et al., 2017; Hale, 2016). While nonstate actor participation is institutionalized in the Convention through the establishment of 'Major Groups' and organized into constituencies representing different interests (e.g., youth, farmers, and business) (Kuyper & Bäckstrand, 2016),

nonstate actors have previously largely occupied tasks of raising awareness and reviewing states' climate actions (Kuyper et al., 2018). The COP21 decision's official welcoming of 'the efforts of all non-Party stakeholders to address and respond to climate change, including those of civil society, the private sector, financial institutions, cities and other subnational authorities' (UNFCCC), however, arguably reflects not only the growing number of actors involved in climate action, but also a changed role for nonstate actors in relation to the UN climate regime (Hale, 2016). By emphasizing nonstate actors' potential as agents of change in the global quest for decarbonization, the Paris regime engages nonstate actors through initiatives such as the Marrakech Partnership for Global Climate Action and by encouraging the registration of nonstate climate actions in the online 'Global Climate Action Portal' (previously called the Non-State Actor Zone for Climate Action, NAZCA) (Bäckstrand et al., 2017). The potential of nonstate actors in terms of contributing to the mitigation of and adaptation to climate change could be immense, and numerous studies have attempted to reign in and assess the aggregated emissions reductions stemming from nonstate actions (see, e.g., Chan et al., 2018; Hsu et al., 2019b). Yet, concerns have been voiced regarding the implications of closely involving nonstate actors in the interstate regime. On the one hand, it could be perceived as important to retain a strict distinction between state and nonstate spheres of influence, either to limit the influence of resourceful lobbyists on the negotiation process or to shield off criticism from the environmental movement regarding (a lack of) climate action. On the other hand, apprehensions regarding possible co-optation of nonstate actors, risking a loss of critical capacity, and too great an emphasis on 'getting things done' without allowing for deliberation and contestation about the (supposedly shared) goal point to the potential dangers of a hybrid regime (Bäckstrand et al., 2017; Dryzek, 2017).

In addition to its involvement of nonstate actors, the Paris Agreement has also been characterized as a hybrid due to the combination of bottom-up, Nationally Determined Contributions submitted by states and the top-down, international oversight enshrined in elements such as the global stocktake and the Enhanced Transparency Framework (Bäckstrand et al., 2017). The question of nationally determined pledges did not, however, originate in Paris. States had already agreed in the negotiation mandate from COP13 in Bali in 2007 to seek a solution based on 'nationally appropriate mitigation commitments or actions' for developed countries and 'nationally appropriate mitigation actions' from developing countries (Decision 1/CP.13). Continuing this line, the controversial 2009 Copenhagen Accord also requested the submission of 'quantified economy-wide emissions targets for 2020' by developed states and asked developing countries to 'implement mitigation actions' (Decision 2/CP.15). Under the Paris regime, the periodical submission of voluntary pledges takes center stage through the institutionalization of the NDC and the repeated encouragements of nonstate actor contributions as the main vehicles for inducing action.

Emphasizing its catalytic characteristics, Hale (2020) as well as Chan and colleagues (2021) have suggested that the Paris regime is most productively understood as a system through which state and nonstate climate action will be subsequently strengthened.

Through introduction of flexibility of commitments and lowered thresholds for participation, it arguably rests upon an idea of built-in dynamism that allows climate action to evolve with shifting preferences of participating actors (Hale, 2020). From this perspective, the Paris Agreement can be viewed as a ‘catalytic institution’ whose main achievement is the institutionalization of a framework for action that over time will alter the costs and benefits of action and whose results in terms of delivering on the temperature goals are yet to be determined (Hale, 2020). While several scholars seem to agree that this hybrid and catalytic model of international collaboration represents a pragmatic solution to years of diplomatic gridlock following the attempted targets-and-timetables approach of the Kyoto Protocol (Falkner, 2016; Held & Roger, 2018), alarming reports of the insufficiency of pledged contributions have led others to condemn the ‘dangerous incrementalism’ that the Paris Agreement represents (Allan, 2019). In these accounts, the Paris model is portrayed as merely the better option to no agreement and is lamented for failing to hold states to account for ‘much of anything except to come back every 5 years to report on their climate action’ (Cléménçon, 2016, p. 18). On a similar note, Geden (2016) warns that treating the voluntary, bottom-up design as anything more than a product of what is politically – rather than environmentally – feasible risks reinforcing a misplaced belief in rational policy processes in which talk and decisions are necessarily followed up by appropriate action.

These criticisms stand in stark contrast to the more optimistic assessments of what the supposedly hybrid and catalytic Paris model can deliver in terms of stringent, effective, and just climate action. They highlight that achieving the goals of the Paris Agreement is not ‘simply’ about bending emissions curves and halting the accumulation of GHGs in the atmosphere; it also includes essential questions of justice, equity, and the right to development. This thesis suggests that, rather than treating climate change as a pre-given policy problem to which solutions need to be found, it is important to turn attention to processes of problematization to illuminate the presence of different ideas on what should be governed and how (Bulkeley, 2016). Hence, it is crucial to ask critical questions about how governing through voluntarism toward achievement of the Paris goals is thought to function and how it enables and constrains the field of possibilities for climate action under the Paris regime. The theoretical basis for asking such questions is outlined in the next chapter.

3 Global Climate Governance as an Object of Study

Climate change has emerged as one of the major governing puzzles of the 21st century, and has engaged social science scholars in analyses of possibilities and obstacles for constructing an effective, global response to climate change (Stripple & Bulkeley, 2014). The unequal distribution of causes and effects, the absence of international institutions with coercive abilities, and the vested interests of powerful states have been identified as reasons for the lack of progress in international climate politics in terms of decreasing GHG emissions (Paterson, 1996). The apparent complexity of the problem at hand has led scholars to investigate the action potential of different sites of authority, including the transformative potential of a ‘green state’ (Bäckstrand & Kronsell, 2015; Eckersley, 2004), international institutions such as the UN (Conca, 2015; Lövbrand et al., 2017), and sites ‘beyond the state,’ such as transnational governance initiatives, cities, business, communities, and social movements (Biermann et al., 2009; Bulkeley et al., 2018; Bulkeley & Newell, 2010; Hadden, 2015). Global climate governance has also been the topic of research rooted in critical social science traditions, examining how patterns of social injustice are produced or reproduced through the practices and research on climate governance (e.g., Dauvergne, 2016; Lohmann, 2005). One such critical analytical project is what could be labeled Foucault-inspired ‘climate governmentality studies’ (Lövbrand & Stripple, 2014, p. 34). By illuminating the ways in which phenomena are constructed as particular problems for government, governmentality studies seek to turn attention to the power relations that permeate governing and their effects in terms of shaping the field of possible action (Dean, 2010; Walters, 2012). In this thesis, governmentality studies provide the means by which to examine how governing through voluntarism under the Paris regime is imagined and practiced and its implications in terms of shaping the idea of appropriate climate conduct.

In the following, the theoretical foundations of the thesis will be outlined. The chapter is divided into three parts. First, the study of world politics is introduced by outlining the surge of global governance studies as a way to make sense of global politics. Second, the critical potential of a governmentality approach to a study of global climate governance is laid out. It is argued that governmentality studies help us ask questions about the ideas

that underpin post-Paris climate governance which, in turn, creates space for the elaboration of alternative ideas and practices. Third, as disentangling Foucault's at times obscure arguments regarding governmentality can prove challenging, this thesis makes use of Miller and Rose's (2008) analytical categories of 'problematization,' 'rationalities of government,' and 'technologies of government.' The definition and analytical potential of these concepts are discussed in section 3.3.

3.1 Understanding World Politics: IR and Global Governance

Before outlining the governmentality approach of this thesis in more detail, it is fruitful to contrast this to global governance studies which constitutes a prominent way of making sense of global climate governance in the 21st century. While research in the field of International Relations (IR), as implied by its name, has been largely concerned with inter-*national* relations (Barnett & Sikkink, 2008), global governance studies emerged in the 1990s as a critique against what was perceived as the inability of traditional IR theories to account for the decentralized, dynamic post-Cold War world as well as the addition of new issue areas, including environmental problems, to the international agenda (Latham, 1999). Offering an account of a polycentric world order, global governance scholars analyze the legitimacy, accountability, and effectiveness of *global* – rather than simply 'international' – responses to climate change (Stripple & Bulkeley, 2014). From this perspective, the increased diversity among state actors in today's globalized world and the snail's pace at which international climate governance has moved over the last decade have led transnational corporations, nongovernmental organizations, and civil society to claim their place in shaping the future of global climate governance (Bäckstrand et al., 2017; Hale, 2016). The hybrid, catalytic design of the Paris Agreement has, in this context, initiated further analyses of how cooperative networks and soft modes of governance can be leveraged to contribute to increased climate action (Jordan et al., 2018).

Reflecting upon the proliferation of global governance as an approach to understanding world politics, Latham (1999, p. 24) suggests that '[g]lobal governance has the benefit of appearing open and diffuse, if not a little noncommittal. Those are attractive qualities in an era of ambiguity, uncertainty, and flux.' He cautions, however, that global governance 'may just fit too neatly into the global *Stimmung*, or mood of the times' (1999, p. 25). What Latham (1999) suggests is that the cooperative, sometimes corporative, narrative of global governance studies risks discarding political battles over appropriate ends and means of governance. While exhibiting a significant capacity to map and interrogate an increasingly diverse landscape of climate governance actors and arenas, global governance studies lack an explicit focus on the power relations that permeate climate governance (Okereke et al., 2009; Stripple & Bulkeley, 2014). By seeking to enhance the effectiveness, legitimacy, or authority of climate governance arrangements, global governance studies generally stay confined to the boundaries of contemporary international institutions. It can, in Cox's (1981) words, be portrayed as a 'problem-solving theory' that contributes to understanding

how climate governance can be improved by attending to specific problems in its functioning, but lacks a critical account of how global climate governance presupposes and projects certain power relations. In this way, global governance studies rest upon particular assumptions about politics and the ‘global’ as a space for collective action (Walters, 2004). Politics, Walters (2004, p. 35) argues, becomes the search for ‘consensus and mutual accommodation’ where actors are ‘implicated as “partners” in a game of collective self-management.’ As a result, the presence of fundamentally different political perspectives that may prove impossible to reconcile through partnerships and cooperation is obscured, in favor of a view of politics as problem management (Walters, 2004).

3.2 A Governmentality Approach to Climate Governance

As set out in the introduction to this thesis, contemporary global climate governance is wrapped up in narratives of the urgency of climate action and stories of already unfolding climate change. In this context, the Paris Agreement is posited as a hub through which or in relation to which climate action is to be mobilized. This thesis argues that this urgency framing provides ample incentive for critically examining the political rationalities that inform climate change governance under the Paris regime. While the desire to prioritize the implementation of, rather than negotiation on, climate action is understandable in light of the challenge ahead, it is vital to ask questions about the ideas on appropriate means and ends of governing that inform current global climate governance and the techniques through which those ideas are to be operationalized. In essence, it is a call for analyses of power, the operation of which ought to be a continuous topic for academic and political debate.

To bring power relations to the center of a post-Paris climate governance analysis, this thesis makes use of Foucault-inspired governmentality studies. First outlined in Foucault’s lectures at the Collège de France in 1978-1979, governmentality has inspired a wide range of studies of the ‘conduct of conduct’ (Foucault, 2008, p. 186). While neither aiming to provide nor succeeding in providing a template for research, governmentality studies have been described as a toolbox for analysis that enables a study of power relations, in turn ‘enhanc[ing] think-ability and criticize-ability of past and present forms of governance’ (Walters, 2012, p. 2). While global governance studies commonly set out to explore *who* governs by examining actors’ roles and authority in different instances of governance (Sending & Neumann, 2006), governmentality studies ask *how* problems are constituted, how they are made governable, to what end, and, importantly, with what political effects (Löwbrand & Strippel, 2015; Walters, 2012). The process of making something into a problem of government is thus turned into an object of analysis (Miller & Rose, 2008; Walters, 2012). In this context, governmentality studies provide analytical tools to identify the rationalities that inform proposed solutions to climate change. By emphasizing the non-inevitability of current modes of governing, governmentality studies seek to illuminate contingencies and the political effects of governing to render seemingly pre-given entities, policies,

and problem descriptions amenable to change. This ‘critical attitude’ to governing thus enables expressions of resistance and the articulation of a ‘will not to be governed thusly, like that, by these people, at this price’ (Foucault, 1997, p. 72).

Governmentality studies also suggest that governing is dispositional; it is concerned with constructing the ‘right disposition of things, so as to lead to a convenient end’ (Foucault, 1991a, p. 8). Rather than assuming that power in global politics rests with the state, international organizations, or, indeed, nonstate actors, this thesis assumes that the constitution of ‘global’ is not pre-given. On the contrary, van Munster and Sylvest (2016, p. 4) suggest that ‘globality’ should be viewed as ‘a social fact whose basic structure, genesis, dissemination and subsequent functions can be opened to historical and sociological inquiry.’ While it is not the intention of this thesis to define the meaning of ‘global’ in relation to the Paris regime, it starts from this nominalist understanding of ‘global’ to examine how post-Paris climate governance is rationalized and practiced, and how different problematizations enable and constrain climate conduct (Walters, 2012). What this thesis is concerned with is, in this context, an exploration of how ideas and practices of governing through voluntarism shapes the field of possibilities to achieve a particular end.

Governmentality studies rest upon Foucault’s notion of power as relational and productive (Lemke, 2012). Rather than assuming that power can be localized in any particular place or person, Foucault suggests that power could be understood in terms of ubiquitous and inescapable, yet amenable, power relations (Foucault, 1986). The question of power, then, is not what power *is*, but how power operates and with what effects (Löfbrand & Strippel, 2015). Studying power includes challenging concepts and practices that are taken as given by reflecting upon the rationalities that inform particular power relations (Foucault, 1982; Löfbrand & Strippel, 2015). What is at stake in a Foucault-inspired critical account is, thus, to make visible the power relations that are always present in social relationships. As power relations are inescapable, a Foucauldian critical project does not entail an emancipatory ambition to ‘break free’ from power relations. Rather, the aim is to make visible certain states of domination to create space for alternative political imaginations (Lemke, 2012; May, 2011). In this way, identifying and challenging power relations is imperative not because they are ‘per se good or bad,’ but because they are “‘dangerous” [...], since they may always solidify into states of domination’ (Lemke, 2012, p. 23). What this suggests is a critical research ethos where attention is turned toward tracing the power relations that permeate governing practices and how such power relations define the field of possibilities (Lemke, 2012; Löfbrand & Strippel, 2015; Walters, 2012). This includes a study of the multiple techniques through which state and nonstate conduct is conducted under the Paris regime, as well as an exploration of the discursive struggles that underpin a constant negotiation of what constitutes appropriate climate action. Through empirically detailed analyses, this thesis seeks to illuminate the multiple, co-existing, and sometimes conflicting ways in which governing is imagined and practiced. Rather than aiming to provide prescriptions for improved governance, the governmentality approach employed here is viewed as an ‘analytical practice of unsettling the taken-for-grantedness of how things are’ (Teghtsoonian, 2016, p.

341) that illuminates how particular rationalities and technologies of government define and delimit a sphere of action, in order to create space for doing things differently. When asked about a potentially ‘anaesthetizing’ effect of his critical ethos in terms of lacking constructive suggestions on how to move forward, Foucault (1991b, p. 84) responded that:

Critique doesn’t have to be the premise of a deduction which concludes: this then is what needs to be done. It should be an instrument for those who fight, those who resist and refuse what is. Its use should be in processes of conflict and confrontation, essays in refusal. It doesn’t have to lay down the law for the law. It isn’t a stage in programming. It is a challenge to what is.

Pursuing critical analysis entails, from this Foucauldian perspective, challenging taken-for-granted discourses and practices of climate governance by pointing to their historically contingent nature. By illuminating the rationalities that inform particular forms of government, how those rationalities become naturalized, and how dominant ideas and practices are challenged, governmentality studies turn attention to the conditions under which governing takes place (Dean, 2010). Rather than providing delineated action proposals, then, this thesis seeks to contribute to what Walters (2012) describes as an increased ‘think-ability’ and ‘criticize-ability’ of current practices which, in turn, can provide actors with tools for resistance and change. This assumes a foundational belief in and an ambition to show ‘that other ways of conducting oneself and others always remain possible’ (Walters, 2012, p. 12).

Several scholars have drawn upon ideas of governmentality studies to emphasize the political nature of climate governance, examining how climate governance is informed by particular rationalities producing distinct political effects (Bulkeley, 2016; Strippel & Bulkeley, 2014). Climate governmentality studies, Lövbrand and Strippel (2014, p. 38) argue, seek to ‘investigate the different ways the activity or “art” called *climate governance* is made thinkable and practicable’ by challenging ‘the received fixedness and inevitability of what governing climate change is all about.’ Departing from such a nominalist, ‘antifoundational’ vantage point enables a study of the diverse ways in which climate change is rendered governable and how different climate governance rationalities elevate particular actors, practices, and topics while obscuring others (Lövbrand & Strippel, 2014; Oels, 2005).

One example of such a climate governmentality study is Oels’ (2013) examination of how climate change is rendered governable as a risk. She argues that current climate security policy is informed by ‘risk management through contingency,’ where monitoring and early-warning systems are employed to build resilience to unfolding climate change, rather than pursuing stringent climate mitigation (Oels, 2013, p. 27). Following the same train of thought, Methmann and Oels (2015) suggest that ‘climate-induced migration’ was previously perceived of and treated as a remediable issue which pointed to the need for ambitious climate mitigation. Recently, they argue, climate-induced migration has instead been framed as a consequence of inevitable climate change centering on adaptation rather than mitigation and, in turn, producing climate change as a ‘matter of fact’ rather than a social and political issue necessitating action. Climate governmentality studies have also examined the

political effects of specific strategies for addressing climate change. For instance, Lövbrand and Stripple (2011) show how techniques of carbon accounting turns carbon into an object of governance by allowing it to be measured and compared. On a similar note, Paterson and Stripple (2012) employ the notion of ‘virtuous carbon’ to trace the construction of carbon markets through its virtuality (how carbon as a commodity is constructed as ‘real’ through digital means) and virtue (how normativity is built into carbon market practices). The effect, they argue, is the construction of the carbon economy as ‘a divine being endowed with natural virtue that limits the space for critical engagement’ by ‘conflating opposition to carbon markets with opposition to action on climate change’ (Paterson & Stripple, 2012, pp. 579, 569). In his account of the 2002 Johannesburg Summit on Sustainable Development, Death (2011, p. 161) similarly demonstrates how governing sustainable development through public-private partnerships prioritizes consensus-seeking actions with easily measurable effects which, in turn, ‘constructs conflict and dissent as peripheral to, and as a distraction from, the central business of implementing sustainable development.’ Rather than portraying sustainable development as a complex issue in need of holistic solutions, the partnership discourse promotes a depoliticized, technocratic approach that relies on supply-side partnerships based on those actors willing to subvert to the particular rules of the game (Death, 2011).

Climate governmentality studies enable an analytical shift from the *who* (actors) and *where* (sites) of governing to the *how* (Lövbrand & Stripple, 2014; Paterson & Stripple, 2012). They help us ask questions about how ideas and practices of governing through voluntarism under the Paris regime produce certain definitions of what constitutes appropriate climate conduct. This thesis makes use of three analytical categories to explore these questions: problematizations, rationalities, and technologies. These are outlined in the next section.

3.3 Problematizations, Rationalities, and Technologies of Government

Foucault invites us to disrupt the essentiality and cohesiveness of entities that are seemingly taken for granted (Bacchi, 2012). He suggests, instead, a nominalist starting point where entities and practices are approached as historically contingent. For a study of climate governance under the Paris regime, this suggests a focus on how climate change has been constructed as a problem in need of government and how that particular problematization enables and constrains action. Governmentality studies provide a diverse set of analytical tools which have been used to examine an equally diverse set of empirical fields (Miller & Rose, 2008). It is not, however, a coherent theoretical framework that can be effectively applied (Walters, 2012). Rather, it is regarded in this thesis as providing the direction of travel and inspiration for formulating research questions, analyzing empirical material, and understanding results. To this end, the thesis draws inspiration from Miller and Rose (2008) to engage with problematizations of climate change under the Paris regime by exploring the rationalities that inform governing through voluntarism and the technologies through which intervention is made possible.

A policy problem is not a pre-defined problem to which policymakers assign suitable policies (Fischer, 2015). Rather than existing ‘out there’ and waiting to be discovered through, for instance, advances in monitoring technology, issues are constructed as particular problems for government. Miller and Rose (2008, p. 14) have suggested a focus on the practice of ‘problematizing’ to emphasize this ‘as a *process*, for it remove[s] the self-evidence of the term “problems”’ (italics in original). Turning attention to problematization suggests an analysis of “how and why certain things (behavior, phenomena, processes) become a problem” (Foucault 1985a: p. 115), and how they are shaped as particular objects for thought’ (Bacchi, 2012, p. 1). By pointing to the non-inevitability of problematizations, current governing practices can be challenged which, in turn, opens up space for thinking and doing differently (Bacchi, 2012; Burchell, 1996; Miller & Rose, 2008). Rose and Miller (1992) further suggest that, to study problems of government, researchers should turn their attention to the political rationalities that inform governing. Rationalities, they argue, are ‘the changing discursive fields within which the exercise of power is conceptualized, the moral justifications for particular ways of exercising power by diverse authorities, notions of the appropriate forms, objects and limits of politics, and conceptions of the proper distribution of such tasks [...]’ (Rose & Miller, 1992, p. 175). In other words, to study rationalities is to examine the regularities of governing in terms of the systematic ways of knowing that underpin particular forms of governing (Miller & Rose, 2008). As such, studying rationalities enables an analysis of how certain actors are positioned as agents of change, while others are not, and how particular interventions are constituted as appropriate, and others not (Lövbrand & Stripple, 2014). Closely related to rationalities is the concept of technologies. Technologies of government refer to the sets of techniques and mechanisms that enable intervention in a particular problem of government (Lövbrand & Stripple, 2014; Miller & Rose, 2008). Miller and Rose (2008, p. 15) state that, in outlining the concepts of rationalities and technologies, they did not intend to ‘designat[e] different domains found in reality’ but rather sought to illuminate the close connections between the representation of and the interventions to a phenomenon. ‘If political rationalities render reality into the domain of thought,’ they argue, ‘these “technologies of government” seek to translate thought into the domain of reality’ (Miller & Rose, 2008, p. 32). Hence, to explore technologies of government is to suggest that governing cannot be understood solely in terms of ideas and made sense of through discourse, but that the ideational is essentially intertwined with practice. By exploring the technical, often routinized, mechanisms through which governing is operationalized, including, for instance, the calculative practices surrounding carbon (Lövbrand & Stripple, 2011; Paterson & Stripple, 2012), governmentality studies serve to highlight the productive effects of seemingly mundane practices.

While it is beyond the scope of this thesis to follow in Foucault’s genealogical footsteps to trace the historical contingency of problematizations in global climate governance, the appended papers engage with problematizations in slightly different ways. Common to all papers, however, is their focus on the identification of contemporary problematizations of climate change under the Paris regime and their effects in terms of demarcating

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appropriate means and ends of climate action. In the next chapter, the operationalization of this governmentality-inspired analysis is outlined.

4 Research Design

Studies of climate change governance under the Paris regime can certainly take different forms. For this thesis, it was considered imperative to engage with and intersect in different parts of the regime, which is demonstrated by the four papers' different foci of study, including the constructions of climate change as a problem for politics in the contents of the NDCs, the NDC as an instrument of government, and the governance of nonstate actors' conduct in line with the Paris goals. While a complete study of all spheres and features of the Paris regime exceeds the scope of this thesis, two core starting points were identified which together enabled an investigation of, and the drawing of conclusions around, the core question of this thesis: How is climate change governed through voluntarism under the Paris regime? First, the thesis has a critical vantage point grounded in governmentality studies and employs mainly qualitative methods for answering the research questions. Second, the thesis includes a breadth of materials which together provide insight into the plural techniques, spaces, and actors through which climate action is mobilized. Moving on, this chapter will first present and discuss the materials used in the four papers, and then elaborate on the analytical processes through which the research questions were examined.

4.1 Empirical Material

To explore how governing under the Paris regime is accomplished, this thesis draws upon an analysis of a large set of empirical material: i) the first round of NDCs submitted by states in relation to the adoption of the Paris Agreement, comprising a total of 145 NDCs representing 173 parties to the Paris Agreement; ii) state submissions to the negotiations under agenda item 3 of the Ad Hoc Working Group on the Paris Agreement (APA) on the operationalization of the NDC; and iii) reports, events, and online tools related to the UN-FCCC-led initiatives to engage nonstate climate actors in the Paris regime. With the exception of the online Global Climate Action portal analyzed in Paper IV, the empirical material upon which this thesis builds are text-based. Subjecting policy texts, reports, and

negotiation material to analysis suggests that climate change problematizations can be identified in disperse contexts and that it is possible to interrogate solution suggestions to understand how the problem to be solved is described (Bacchi, 2012). Rather than neutral or objective informational elements, the empirical material are viewed as both prescriptive and performative; by elaborating certain problem-descriptions and solution suggestions, the texts produce and reproduce particular ways of problematizing a phenomenon. The materials were chosen based on the centrality of both the NDCs and initiatives to engage non-state actors for mobilizing voluntary climate action. Figure 1 provides an overview of how the four papers respond to the research questions of this thesis and the empirical materials used in each paper. In the sections below, the materials are presented and discussed in more detail, and the contributions of each set of material to answering the research questions are laid out.

Figure 1. Overview of the research design of the thesis, indicating the research questions addressed and the materials used by each paper.

4.1.1 The Nationally Determined Contributions (NDCs)

The NDCs are at the core of the Paris Agreement, and also constitute a core part of the empirical material of this thesis. While Paper III examines the NDC as an instrument of government, Papers I and II engage in different ways with the contents of the NDCs to study the climate policy discourses articulated by states and the suggested roles for the state in implementing the NDCs, respectively. As such, the analyses of the contents of the NDCs answer the first research question of this thesis, by examining in two ways how the political problem of climate change is constituted in the NDCs. As mentioned above, policy documents, such as the NDCs, produce and reproduce a particular problem description over another and are, thus, prescriptive (Bacchi, 2012). In defining and presenting their NDCs, states articulate their ideas about what type of problem climate change is (and is not) and which solutions they perceive as desirable to intervene in that problem. The NDCs thereby contribute to constituting of climate change as a particular problem for government, as well as pointing out both the adversaries in terms of who and what is to blame for causing the problem, and the agents that are important to alleviate the problem (Hajer, 1995; Miller & Rose, 2008).

The NDCs were first submitted ahead of the 2015 Paris conference (then called ‘intended’ NDCs, or INDCs) in an attempt to secure and communicate a sense of strong commitment by states to the process of meeting a new agreement. Upon ratification of the Paris Agreement, states were welcome to submit an NDC that differed from their intended NDC, but, as no state chose to do so, the intended NDCs were consequently converted into states’ first formal submissions to the Paris Agreement. Both Papers I and II analyzed all NDCs submitted to the UNFCCC NDC Registry at the time of analysis. As a result, Paper I analyzed 136 NDCs (119 in English, 10 in French, 7 in Spanish), representing 164 parties to the Paris Agreement, while Paper II analyzed 145 NDCs (127 in English, 11 in French, 7 in Spanish), representing 173 parties to the Paris Agreement. Due to the special membership status of the EU in the UNFCCC, the EU has submitted one common NDC representing all (at the time of submission) 28 member states.

4.1.2 State Submissions to NDC Negotiations

Paper III studies how the NDC is employed as an instrument of government. It does so by examining how states articulate ideas about the appropriate format, scope, and application of the NDC as a governing instrument. While interstate negotiations on the NDC have spanned multiple arenas over several years, Paper III centers on submissions made by states or groups of states in relation to the negotiations on further guidance on the features, information, and accounting of NDCs under agenda item 3 of APA. At different moments in these negotiations, states were prompted to elaborate on and specify their views on the purpose and extent of further guidance on the NDC, which provided an opportunity to analyze how states define the problem in need of governance and how and to what extent that problem should be dealt with through the NDC. As such, Paper III analyzed the 64

submissions from states or groups of states made in relation to the seven APA sessions organized during the period 2016-2018. Over the course of negotiations, states were able to make their submissions at any time, in any form, and in any constellation of states, implying that the scope and foci of the submissions may vary. The informal notes commonly compiled by the agenda item 3 co-facilitators at the end of each negotiation session did, however, typically highlight specific issues on the table in relation to which states were encouraged to outline their views, such as potential linkages between NDC guidance and other parts of the Paris Agreement or appropriate elements of NDC accounting. This provided further depth to the analysis as states were usually prompted to clarify or elaborate on their position, which was advantageous in Paper III's quest to explore the envisioned functions of the NDCs.

4.1.3 Nonstate Actor Engagement Initiatives

In Paper IV, initiatives organized under the auspices of the UNFCCC to engage nonstate actors in climate action are examined. This responds to the second research question of the thesis regarding how nonstate climate action is mobilized under the Paris regime. To explore the multiple ways in which nonstate action is induced, this set of material was collected based on a close reading of the UNFCCC website, an expert interview, and field experience on the part of the researchers involved. Since nonstate climate action under the Paris regime is a highly dynamic sphere that changes rather rapidly, the research design also allowed for the inclusion under hand of newly launched initiatives, such as the November 2020 Race to Zero Dialogues.

The material consists of reports, program statements, and tools produced by the UNFCCC and the High-Level Champions. As part of the UNFCCC's efforts to induce nonstate climate action, the issuing of a number of reports has become institutionalized. This includes the *Yearbooks of Global Climate Action*, which seek to 'take stock of what is happening on the ground to reveal progress and opportunities for increased action' (Marrakech Partnership, 2018, p. iii), the *Climate Action Now: Summary for Policymakers*, which 'shows that policy solutions exist' (UNFCCC, 2018a, p. 4), and the *Global Climate Action 2018: Examples of Good Practice*, which aims to 'demonstrate what is working well and what could work elsewhere' (UNFCCC, 2018b, p. 3). The material also includes annual work programs that indicate the direction of work for the Marrakech Partnership, the online Global Climate Action Portal to which nonstate actors are encouraged to submit their climate action pledges, material on the Momentum for Change campaign, including their annual issuing of awards for 'Lighthouse Activities' (now called Global Climate Action Awards), and material related to the Climate Neutral Now initiative, which asks of nonstate actors to become climate neutral through a combination of emissions reductions and offsetting. In addition, the so-called High-Level Champions, appointed by states to bridge state-nonstate climate action, have produced documents within the context of their mandate that were also subjected to analysis. This includes the *Road Map for Global Climate Action 2016*, a document

launching the Marrakech Partnership, and a report on the 2019 achievements of the High-Level Champions and the Marrakech Partnership.

This plethora of material provided ample opportunity to study the ways in which nonstate actors are portrayed as agents of change, through which means the conduct of nonstate actors toward the Paris goals should be governed, and the rationalities that underpin these practices. In line with a notion of government that is interested in the various means and techniques that attempt to conduct conduct (Walters, 2012), Paper IV analyzed the content of the documents mentioned above, but also perceived the *practice* of report-making as part of the effort to govern nonstate climate actors toward specific ends. Moreover, studying documents and practices that are not obviously political is imperative for broadening the view of how and where governance of climate change is conducted under the Paris climate regime (Strippel & Bulkeley, 2015). While policy documents originating from a state or documentation on interstate negotiations can be more easily interpreted as infused with political interests, the various initiatives to induce nonstate climate action may be perceived as apolitical. Subjecting such practices to critical scrutiny thus illuminates the ways in which they contribute to shaping the idea of appropriate climate conduct under the Paris regime, and follows the assumption of governmentality studies that governing is not limited to acts of a national government, but also works through mundane practices that order conduct in particular ways (Miller & Rose, 2008; Walters, 2012).

As a summary, Table 1 shows the types and scope of the empirical material used for each paper. Together, they allow for analyses of some of the core parts of governing through voluntarism under the Paris regime.

Table 1. Specification of the empirical material used for each paper, the scope and sources of the material, and the times of retrieval.

Paper	Types of material	Scope	Source	Retrieved
Paper I	NDCs	136 NDCs representing 164 parties to the Paris Agreement	UNFCCC NDC Interim Registry	Until Nov 27, 2017
Paper II	NDCs	145 NDCs representing 173 parties to the Paris Agreement	UNFCCC NDC Registry	Until Jul 30, 2018
Paper III	State submissions to APA agenda item 3	64 submissions by states or groups of states in relation to the seven APA sessions in 2016-2018	UNFCCC website	Until Jun 16, 2021
Paper IV	UNFCCC & High-Level Champions material on nonstate actor engagement	Reports, work programs, yearbooks, events in 2014-2021	UNFCCC website	Until Jan 21, 2021

4.2 Methodology

This thesis rests largely on qualitative methods to allow for analysis and interpretation of how climate change is rendered a problem for government under the Paris regime. This implies Foucault-inspired analyses of discourses and practices of governing in different parts of the Paris regime. In addition, some descriptive statistics have been used to explore alternative cartographies of the post-Paris climate governance landscape by examining cross-country patterns of climate policy discourses and perceived roles for the state in climate governance (Papers I-II). This mix of methods warrants some discussion.

In contrast to a triangulation approach, where different methods may be used to interpret the same empirical material in order to increase the validity of the study (Berg & Lune, 2014), different methods are applied in this thesis at different stages of the analytical process. Doing so rests on an assumption that qualitative and quantitative methods are not inherently contradictory, but that they enable different questions to be asked and different answers to be conveyed. The use of different types of methods, which in turn rest on different theoretical assumptions, nevertheless presents at least two challenges. First, avoiding eclecticism is imperative; using multiple methods merely for the sake of variation is insufficient (della Porta & Keating, 2008). In Paper I, discourse analysis was used to examine the rationales behind states' descriptions of climate change as a political problem, while descriptive statistics allowed for the creation of a discursive cartography to explore the characteristics of the identified discourse coalitions. Similarly, Paper II analyzed the governance mechanisms proposed by states to implement their respective NDCs to explore the envisioned roles for the state in climate action. This was followed by the use of descriptive statistics to examine cross-country variations of role perceptions. Mapping and clustering thus allow the identification and demonstration of connections between qualitatively identified categories and conventional geopolitical patterns that would have otherwise escaped a purely qualitative study. The second challenge of mixing methods relates to epistemology. Following the largely interpretivist approach of this thesis, the searches for cross-country patterns in Papers I and II are not an endeavor to identify causality or an attempt to produce generalizable rules of state-action in climate governance. Rather, exploring cross-country patterns is used here as a way to examine how discursive and interpretive analytical categories can pluralize our understandings of the world order produced under the Paris climate regime.

Inspired by Foucault, this thesis argues that it is through discourse that the world is made governable and that discourse analysis can therefore aid an examination of how a phenomenon is constructed as a problem for government (Miller & Rose, 2008). The papers in this thesis all rest on Foucault-inspired ideas on discourse, with particular guidance from Hajer's definition of discourse as 'a specific ensemble of ideas, concepts and categorizations that are produced, reproduced and transformed in a particular set of practices and through which meaning is given to physical and social realities' (1995, p. 44). While Foucault-inspired discourse analysis is not, and should not be treated as, a coherent method, three Foucauldian arguments can be discerned which are of importance to this thesis. First, the social is

historically contingent (Lövbrand & Stripple, 2015; May, 2011; Walters, 2012). No pre-given constants exist. Elements such as ‘the state’ are not pre-determined universals but are constituted through discourse. Because constraints on action are historically contingent, they can be identified and changed (May, 2011). Consequently, ‘climate change’ or ‘climate governance,’ rather than constituting predetermined phenomena to which policymakers react, are objects whose meaning is produced through discourse. This proposition entails that, by examining the ways in which ‘climate change’ is constituted as a problem for government in the Paris regime and the opportunities and limitations particular problem descriptions present in terms of enabling and constraining action, discourse analysis can illuminate the non-inevitability of a particular problematization and, in turn, create space for resistance. Second, discourse constitutes subject-positions. It follows that no actor [...] “is” powerful in Foucaultian terms, but that different positions individuals take up or are assigned afford specific arenas for the exercise of power’ (Feder, 2011, p. 59). Rather than assuming that power rests with, e.g., the state or particular nonstate actors, power relations are constituted through discourse by positing particular actors as agents of change. Accordingly, this thesis’ analyses of how climate change is governed through voluntarism under the Paris regime seek to illuminate the power relations that are produced and reproduced through this particular mode of government. Third, discourse has effects in the ‘real’ to which it is linked. By ‘found[ing], justify[ing] and provid[ing] reasons and principle for [certain] ways of doing things’ (Foucault, 1991b, p. 79), discourse enables and constitutes some practices as rational while constraining others, which in turn affects the way in which the social is organized. Hence, the way in which climate change is constructed through discourse carries effect in the practice of climate governance by shaping the boundaries of appropriate climate action. After this setting of the scene, we now turn to the analytical processes that led to the four papers.

4.2.1 Explicating the Analytical Process

The papers included in this thesis engage with analysis of problematizations in different ways. While the theoretical foundations of a governmentality approach have been discussed in chapter 3, this section outlines the components that have informed the analytical processes of the four papers.

Cultivating the Foucauldian legacy, governmentality scholars have warned against reductionist attempts to define specific methods to identify governmental rationalities, preferring instead to refer to governmentality as a ‘toolbox’ to inspire ‘critical encounters’ with plural ways of governing (Walters, 2012, p. 5). This explorative ethos has guided work on this thesis and has resulted in slightly different *modi operandi* in the different papers. While fluidity and exploration constitute the basis for much Foucault-inspired research (Lövbrand & Stripple, 2015), including studies that use a governmentality approach, the outcomes are, however, oftentimes rather fragmentary accounts of the analytical processes that led to the subsequent results. The collection of empirical material and the questions guiding the

analysis are commonly spelled out, while the actual interpretive process, including the selections, delineations, and reinterpretations made, remain largely obscured. To counter this fragmentation, the papers included in this thesis sought to combine an explorative, inductive approach with careful explication of the analytical process to enhance the understanding of how the interpretations were made. Importantly, this is not a proposition to apply conventional ideas of validity and reliability to interpretive studies. While certainly providing means for assessing the robustness of certain types of studies, such as those employing quantitative methods (Creswell, 2014), they rest upon an epistemology that neglects the role of the researcher and are not necessarily equipped for judging the quality of studies in the interpretive realm. Rather, critical research, including climate governmentality studies, should consider other ways to elucidate their methods for analysis in order to improve the traceability and understandability of the analyses in question. This thesis seeks to make a contribution in this regard by outlining the basic principles that informed the analyses and, in section 4.2.2 below, how these principles were operationalized in the different papers.

The analytical processes of the four papers were guided by three components: exploration, iteration, and representation. Rather than temporally distinct phases of the analysis, these components are essentially intertwined and encourage continuous evaluation and reconsideration to determine the methods and analytical directions most appropriate to capture the core aim of each paper. In line with the explorative idea of governmentality studies, the papers all share an inductive or abductive starting point. Consequently, they do not seek to analyze the empirical materials' coherence with previously identified categorizations, but rather explore the material in light of particular questions. This implies a close reading of previous literature as well as familiarity with the empirical field which then informs the formulation of analytical questions that, in turn, lead to the identification of categories and patterns in the empirical material (Creswell, 2014; della Porta & Keating, 2008). Each paper also rests on an iterative analytical process, meaning that both the analytical questions and the themes interpreted from the materials have continuously been evaluated and, if needed, altered to suit the materials, in turn allowing for dynamism in the research process. While the overarching aims of the papers were outlined before initiation of the analyses, retaining the possibility for dynamism in the execution of the analysis allowed them to evolve based on the contents of the material. Concretely, this manifested, for instance, as a stricter delineation of empirical material than was intended at the outset (Paper III) or, contrarily, casting the net wider than initially planned to ensure the inclusion of a variety of current governing initiatives (Paper IV). At the same time, coherency with the aim and research questions as well as assuring a robust and systematic analysis is critical. To this end, the computer software NVivo was used to structure the analytical processes. NVivo is a program that allows import of text material and can be used to organize text-based analysis. While the software contains functions for automated searches and coding schemes, all coding for this thesis was manually conducted. This means that each document was read in full and that all coded statements were read in their context in order to capture their conveyed meaning (Berg & Lune, 2014). In NVivo, the user can highlight text segments and assign

them to specific ‘nodes.’ It also enables the creation of a hierarchy by introduction of sub-nodes to a top-level node, which allows, for instance, specification of a particular theme. Using NVivo in this thesis not only aided the organization of the large amount of empirical material, but also enabled backtracking the analysis, and allowed for the creation of new – or the ability to merge – categories during or after the analysis. Concretely, each paper’s analysis followed a general pattern: i) drafting of one or two analytical questions; ii) coding of text segments in the empirical material according to the questions, resulting in a number of nodes; and iii) review of the material coded into each node, sometimes resulting in the creation of new nodes or merger of existing nodes. All nodes were then commonly entered into an Excel sheet where their specific characteristics were spelled out to enable the search for similar rationalities or problem descriptions across different nodes. This leads to the third component that informed the analytical processes: how to represent both the results and the process that led to their identification. As a way of elucidating the process of interpretation, the papers included in the thesis in different ways include tables or figures that seek to make explicit how interpretations have been made. For instance, Table 2 exemplifies how the nodes identified in states’ NDCs in the analysis that resulted in Paper I were interrogated to uncover the rationale that informs that particular problem description. Paper IV goes about this task in a slightly different fashion (Figure 2), attempting to visualize how the three analytical questions were addressed in sequence, in the end leading to the identification of three technologies for governing nonstate climate action.

Table 2. Example of analysis of nodes identified in the NDCs in Paper I.

Originally published in Jernnäs, M. & Linnér, B.-O. (2019). A discursive cartography of nationally determined contributions to the Paris Agreement. *Global Environmental Politics*, 55, 73-83.

Node	What is the problem?	Rationale
Decoupling possible	GHG emissions are not sufficiently decoupled from economic growth	Growth and environmental sustainability are reconcilable interests
Raising awareness	People are not sufficiently knowledgeable about climate change and action alternatives	With increased knowledge and participation, climate change can be addressed in a better way
Nature as sink	The potential of natural resources as CO ₂ sinks is not sufficiently tapped	With improved management of natural resources, climate change can be addressed in a better way

By presenting not only the synthesized results of the studies but also extracts from the interpretive processes, the choices made throughout the analyses are made more explicit. While this is an essential part of making the analyses understandable and allowing the reader to judge the plausibility of interpretations, it could also exaggerate the distinctness of boundaries between the identified themes. To counter such tendencies, representations of the interpretations and the results have sought to avoid inducing a sense of hierarchy among

the themes. Another mode of enhancing the transparency of the analytical process is to elaborate thick descriptions of the identified results, for instance through inclusion of quotes from the empirical material in the results section. This serves to exemplify rather than only describe the text segments that have been coded, in turn allowing the reader to judge the appropriateness of the interpretations that underwrite the analysis (Creswell, 2014). Also in this regard, the NVivo software played an important part as it eases the search for representative quotes and allows the user to return to the original text in which they were found.

Figure 2. Example of representation of the analytical process in Paper IV.

Rather than static portrayals of obtained results, representing the results also provides an opportunity to play with different tools of communication to stimulate new reflections upon the implications of the results. The creation of a ‘discursive cartography’ is one example in this regard (Figure 3). The practice of mapping always runs the risk of reifying and taking for granted conventional boundaries, especially when arbitrarily determined administrative borders, such as those of nation states, constitute the backdrop onto which something is mapped. As Walters (2012, p. 142) reminds us, ‘there is nothing innocent about cartography. The practice is never neutral.’ This thesis’ creation of a discursive cartography should not be perceived as an attempt to visualize objective facts, but as a way of exploring novel ways of thinking about interpretive results. Moreover, the attempt to construct a discursive cartography was not limited to the creation of the maps. Rather, the cross-country patterns of storylines and roles for the state identified in Papers I and II all represent attempts to explore how discursive expressions and ideas can constitute the basis for a cartography as a way of understanding the political geography of post-Paris climate governance. The examinations of idea-based cross-country patterns thus repeal any notion of

a cohesive ‘Paris discourse’ by illuminating how climate change problematizations differ across different locales. In this way, creating cartographies was seen as serving a dual purpose: first, to illuminate cross-country patterns of discursive expressions, and second, to construct a cartography that centers ideas, rather than material interests, as a node for making sense of today’s global climate politics.

Figure 3. Example of map constructed for Paper I to display expressions of storylines. Originally published in Jennäs, M. & Linnér, B.-O. (2019). A discursive cartography of nationally determined contributions to the Paris Agreement. *Global Environmental Politics*, 55, 73-83.

4.2.2 Studying Problematizations: Four Papers, Four Ways

To illuminate how governing through voluntarism under the Paris regime is imagined and practiced, the four papers included in this thesis study climate change problematizations in different ways, as elaborated in section 3.3 above. While an all-encompassing mapping of ideas and practices of governing is neither possible nor desirable (Bacchi, 2012), the thesis attempted to use different entry points to study the ways in which climate change is problematized, i.e., constructed as a problem for government, under the Paris regime. In this context, the examinations of storylines (Paper I) and roles for the state (Paper II) as well as NDC functions (Paper III) and technologies for governing nonstate climate actors (Paper IV) represent different approaches to exploring problematizations. To this end, the analytical questions that guide the analyses in the four papers are informed by the same foundational elements: What is the problem that is to be governed, and how should the problem be dealt with? Figure 4 highlights the analytical questions that guide each paper included in the thesis.

Figure 4. Questions guiding the analyses in the papers included in the thesis.

Paper I employs Hajer's (1995) concept of 'discourse coalitions' to examine how states cluster around storylines on climate change and how these discursive coalitions compare with conventional patterns of states in international politics. Storylines, which, according to Hajer (1995, p. 56), can be viewed as 'mechanism(s) of creating and maintaining discursive order' by 'suggesting unity' among otherwise fragmented knowledges and interests, were identified to understand how states describe climate change as a political problem. The emergence of a new storyline can signify a changing understanding of the problem at hand which, in turn, may suggest alternative perspectives on the appropriate spheres, mechanisms, and types of actors within, through, and by which the problem should be addressed. Paper I starts from the assumption that states are simultaneously enabled and constrained by ideational and material structures, implying that states have some possibility to use storylines strategically to advocate a certain problem description or advance their position. Hajer notes, however, that 'all action and positioning is [not] the result of an active process of taking up or denying of positionings' (1995, p. 56). Rather, 'people do not recognize them as moments of positioning, but simply assume that this is "the way one talks" on *this sort of occasion*' (Hajer, 1995, pp. 56-57, italics in original). This means that, while actors are not deplete of agency, they can be expected to be affected by structured, routinized ways of seeing.

The coding of the NDCs for Paper I was conducted in three steps. First, statements in the NDCs were coded based on the question 'What is the problem to be solved?' into a total of 40 nodes which were created progressively as the coding proceeded. Second, the nodes were analyzed to identify the underlying rationale of the problem description. Third, nodes informed by the same rationale were grouped together in a total of eight groups and a storyline for the group was identified. Examining which parties subscribed to each group enabled the identification of discourse coalitions.

As a second way of exploring the constitution of climate change as a political problem, Paper II scrutinized the governing mechanisms that states propose to implement their respective NDCs. By retaining a broad understanding of governance mechanism, the paper sought to gauge the many ways in which climate change was posed as a problem for government, resulting in the identification of 19 governance mechanisms, such as introduction of legislation or arranging public awareness campaigns. In a second step, the identified governance mechanisms were analyzed using Howlett's (2011, p. 53) typology, which enables categorization of governance mechanisms according to the governing resources they draw upon and whether they seek substantive or procedural change. From this categorization, Paper II found eight roles for the state in climate action that highlight different ways of defining the scope of climate change as a political problem and the appropriate means for addressing it.

Both Papers I and II also include comparisons of their results (discourse coalitions and roles for the state) to conventional categories of states to examine potential cross-country patterns of climate change problematizations. The papers examine if and how states' problematizations of climate change follow historical lines of division among states or whether new patterns emerge. Four state patterns were chosen for comparisons: i) the UNFCCC annexes, which sort states into developed and developing countries; ii) the World Bank categorization of levels of national income, where states are sorted as high-, upper-middle, lower-middle or low-income countries; iii) geographical regions, according to the UN Statistics Division; and iv) the negotiating coalitions in the UNFCCC. These indexes can be said to represent some of the conventional lines of division along which interstate contention has been present in the UNFCCC since its inception: between developed and developing countries, countries with different economic prerequisites, countries located in different parts of the world, and countries in different interest groups. Both papers utilized descriptive statistics to examine the extent to which identified groups of states overlapped with conventional state categories. It is important to make a few points here. First, both the expressed storylines and the roles for the state that states suggested were treated as dichotomous variables, indicating only whether or not a state expressed the storyline or role. This means that neither Paper I nor Paper II attempted to make any claims about the *degree* to which a state expresses a certain storyline or role for the state in its NDC. Second, the two papers refrain from making any causal claims. It was not the aim of any of the papers to explain *why* a particular state expresses a certain storyline or suggests a particular role for the state in addressing climate change. Rather, the aim was, as mentioned in 4.2.1 above, to explore how different representations can contribute to denaturalizing conventional ways of thinking about order and categories in global climate governance. Crafting a cartography based on discursive elements can, in this way, pluralize our understandings of the shape of the post-Paris climate governance landscape.

Papers III and IV turned their attention to the technologies of government employed to mobilize climate action under the Paris regime. Paper III started this examination from the assumption that 'the NDC' is a governing instrument that seeks to conduct conduct in

particular ways. Post-Paris governance literature includes comprehensive reflections upon the foundations of this new governing architecture and the problems and promises it might entail (e.g., Allan, 2019; Hale, 2016; Keohane & Oppenheimer, 2016). Previous research has also subjected the contents of the NDCs to discursive analyses (Mills-Novoa & Liverman, 2019; Tobin et al., 2018; Papers I-II) and examined the political meaning of NDCs by exploring their roles as commitments or negotiation positions (Leinaweaver & Thomson, 2021). Paper III adds to this growing body of interpretive analyses of post-Paris governance and the NDCs. By studying ideas about ‘the NDC’ as a governing instrument as articulated in the APA negotiations, Paper III enabled an empirically grounded exploration of how ideas of a pledge-based system play out in practice. It explores states’ ideas on the appropriate functions of the NDC as an instrument for governing through voluntarism by asking which purposes states envision for the NDC and how those purposes are to be achieved. After reading each state submission in full and conducting a first coding according to the broad purposes articulated in the material, the coded text segments were analyzed a second time to pinpoint the specific purposes articulated by states and the different means that states presented as necessary to achieve them. For instance, the broad purpose of ‘ensuring trust’ was specified as ideas that the NDC should promote mutual trust among parties by enhancing transparency of their i) pledges, ii) rate of implementation, and iii) mode of self-differentiation. Based on this second round of analysis, five core functions of the NDC as a governing instrument were delineated.

Continuing the analysis of techniques for mobilization, Paper IV explored the political rationalities that inform UNFCCC-led initiatives to engage nonstate actors in climate action. It asked i) which practical techniques are used to govern nonstate actors’ climate conduct; ii) which ways of thinking and knowing inform those techniques; and iii) how nonstate actors are imagined in and through this mode of governing. Like Papers II and III, Paper IV employed a broad understanding of ‘governing’ to identify a variety of dispositional techniques through which nonstate actors’ climate conduct is conducted (Miller & Rose, 2008). After reading the empirical material in full, eleven techniques were identified, such as ‘mapping’ and ‘reporting’. These techniques were further scrutinized to denote the rationalities that inform them and the ways in which they shape the idea of appropriate nonstate climate conduct. By grouping techniques together based on their rationality, Paper IV found three technologies for governing nonstate climate action.

The thesis rests upon a mix of methods that share an interest in problematization as an analytical project (Bacchi, 2012). Together, they enabled an extensive, empirically grounded analysis of the ideas and practices through which governing through voluntarism is accomplished. In the next chapter, the key results from the four papers are presented.

5 Climate Change Problematizations: Insights from the Papers

Continuous emissions of GHGs constitute an increasingly acute challenge that dwarfs current international efforts to curb emissions and limit dangerous climate change (WMO, 2020). Designating climate action ‘an epic policy test’ in his ‘State of the Planet’ speech in December 2020, UN Secretary-General António Guterres pointed to the need to achieve global carbon neutrality, mobilize global finance toward climate action, and enhance climate adaptation efforts to end humanity’s ‘war on nature’⁶. To address this urgent task, the Paris Agreement suggests a hybrid, catalytic model of global climate governance where states and nonstate actors commit to a dynamic process of periodical submission and updating of largely voluntary climate action pledges (Bäckstrand et al., 2017; Hale, 2020). Turning attention to the ways in which climate change is problematized, this thesis explores the rationalities and technologies that underpin governing through voluntarism under the Paris regime. By examining how climate change is constructed as a political problem (Papers I-II) and how voluntary state and nonstate climate action is mobilized (Papers III-IV), the thesis shows that governing climate change through voluntarism under the Paris regime accentuates quantifiable, comparable, and aggregable climate actions, while simultaneously allowing a peculiar plurality of climate policy discourses and practices to coexist. It shows that, while the turn toward voluntary climate action pledges seeks to move climate governance past longstanding, at times paralyzing, conflicts over fairness and responsibility, these conflicts still manifest themselves in discursive struggles in different locales of the climate regime. In the following, insights from the four papers included in this thesis are presented and discussed. By examining climate policy storylines (Paper I), suggested roles for the state in climate action (Paper II), the envisioned functions of the NDC as a governing instrument (Paper III), and the technologies for governing nonstate actors’ climate conduct (Paper IV), the papers use different entry points to illuminate the ways in which climate change is constructed as a particular problem for government under the Paris regime.

⁶ Speech on ‘The State of the Planet’ by UN Secretary-General António Guterres, Dec 2, 2020. Available at <https://www.un.org/sg/en/content/sg/speeches/2020-12-02/address-columbia-university-the-state-of-the-planet> (Accessed May 6, 2021)

5.1 Delineating the Problem(s): Climate Action Storylines and Roles for the State

The analyses of states' NDCs demonstrate a plurality of problem descriptions and solution suggestions (Table 3), ranging from descriptions of climate change as a win-win, opportunity-laden challenge to a perceived need for systemic change by overthrowing the capitalist economic system (Paper I). There is also a similar breadth of suggested roles for the state in addressing these challenges, including, inter alia, the state as a *Regulator*, *Orchestrator*, *Process Designer* and *Market Facilitator* (Paper II). These results point to two important findings. First, the boundaries of climate change as a political problem are by no means predetermined or consensually agreed. Second, through the self-determined nature of the NDC, this plurality of problematizations is made to fit under the policy architecture of the Paris Agreement.

The discursive analysis of the NDCs demonstrates that climate change is most commonly constituted as a problem that is solvable within the liberal economic system (Paper I). Captured in the storyline of *The promise of decarbonization*, attention is turned toward the perceived need to correct the current economic system to more accurately internalize climate concerns, the possibility to construct win-win solutions, and the importance of 'prioritising those [mitigation actions] with the most promising costperformance ratio' (Monaco's NDC). Refuting the description of climate mitigation and economic growth as competing interests, this storyline instead portrays climate change as a market failure which, in turn, points to the need to 'direct all [...] domestic efforts and international alliances to decoupling economic growth from greenhouse gas emissions' (Chile's NDC) and introduce appropriate (economic) valuation of climate goods. Also expressed by almost 95% of states is the storyline of *Mending climate change through natural resource management*. Suggesting increased development and distribution of monitoring, reporting, and warning systems, this storyline exhibits an instrumental view of nature and posits the need for appropriate management of natural resources as a core feature of successful climate action. The near omnipresence of these two storylines in the NDCs mirrors previous examinations of climate policy discourses (Bäckstrand & Lövbrand, 2006; Dryzek, 2013; Stevenson & Dryzek, 2014) and suggests that the 'discursive compromise' (Bäckstrand & Lövbrand, 2019, p. 529) between the economic and administrative rationalities of the discourses of ecological modernization and green governmentality is reflected also in articulations of post-Paris climate action. Previous literature has, however, also highlighted the presence of climate policy discourses that center issues of system critique, enshrined, for instance, in an emerging climate justice discourse (Bäckstrand & Lövbrand, 2019). Similarly, Paper I points to the presence of systemic critique, for instance, in the *System change, not climate change* storyline. The paper also demonstrates, however, that critique takes many different forms in the NDCs.

Table 3. Identified storylines (Paper I) and state roles (Paper II), including description of characteristics and percentage of total number of states expressing the actual storyline or role.

CLIMATE CHANGE PROBLEM DESCRIPTIONS IN THE NDCS			
STORY-LINES (<i>n</i> =164)	The promise of decarbonization	There are win-win opportunities in climate change which can be seized	95.7
	Mending the climate through natural resource management	Current management of natural resources needs to be corrected	94.5
	Tapping the potential of nonstate climate actors	Nonstate actors could and/or should contribute and bear some of the costs	69.5
	Climate change as an urgent security threat	Climate change contributes to national and human insecurity and must be prioritized accordingly	51.8
	Empowering the vulnerable	Climate action needs to consider that some groups are disproportionately affected by climate change	48.2
	Equitable climate action	The principle of equity should permeate climate action	27.4
	Climate action as a threat to economic development	Climate action should be sensitive to states' developmental and/or economic needs	9.1
	System change, not climate change	New path to societal and economic development needed to cope with climate change	7.9
STATE ROLES (<i>n</i> =173)	Regulator	Legislation, policies needed to steer citizens' and businesses' behavior toward climate change goals	93.0
	Facilitator	Favorable material conditions needed to enable citizens, businesses to act in line with climate goals	76.2
	Market Facilitator	Facilitation and maintenance of market structures needed to enable more efficient market-based climate action	74.4
	Process Designer	Favorable material conditions needed to enable policymaking in line with climate goals	64.0
	Informer	Provision of climate-related information needed to enable citizens, businesses to act in line with climate goals	59.3
	Information Collector	Production, collection, and coordination of climate-related information needed to enable citizens, businesses to act in line with climate goals	54.1
	Financier	Economic incentives needed to reward and/or discourage behaviors	43.6
	Orchestrator	Coordination of interests needed to enable citizens, businesses to act in line with climate goals	15.1

By dressing climate change in terms of disproportionate agency and vulnerabilities, security threats, or needed system changes, different climate change problematizations are brought forward which in different ways point to the interplay of social inequalities with climate governance. Interestingly, the identified inequalities are diagnosed and addressed differently in different storylines, which, in turn, has effects in terms of defining appropriate climate actions. For instance, the storylines of *Empowering the vulnerable* and *Equitable climate action* suggest that inequalities are manifested in uneven patterns of climate-related vulnerabilities and access to participation, respectively (Paper I). Drafting and implementing climate actions must, from the perspective of these storylines, acknowledge and engage diverse social groups to extend participation to those disadvantaged through, for instance, citizen consultations. Voicing another line of critique is the storyline of *Climate action as a threat to economic development*. This storyline challenges the win-win supposition of *The promise of decarbonization*, arguing instead that climate action might also bring adversities, especially to states heavily invested in the carbon economy or those already in a disadvantaged position in the current order. What is apparent in these three examples is, however, that they do not necessarily locate the source of the problem in the societal structure. Rather, they suggest that the challenges lie in designing climate actions that respect, and respond appropriately to, different actors' interests, implying, in turn, that these interests can be satisfied through tools found within the current order.

By contrast, when it comes to storylines advancing claims for *System change, not climate change* or dealing with *Climate change as an urgent security threat*, adjusting current practices does not suffice. What is sought here is, rather, a transformative change in what is perceived as a fundamentally flawed system. The former posits the perceived inability of a capitalist system to appropriately value and respect nature. Through demands to acknowledge the rights of nature and identify and respect ecological red lines, as well as calls to create an 'ecological civilization' (China's NDC) and curb 'extravagant' ways of life (India's NDC), *System change, not climate change* paints a picture of an alternative path in order to overturn the arguably systemic failures of the current order. As such, this storyline parallels articulations of radical critique seen both historically in the international system (Linnér & Selin, 2013) and more recently in the rise of the climate justice movement (Bäckstrand & Lövbrand, 2019). The expressions of systemic critique in the NDCs do, however, take multiple forms and the similarities with radical social movements should not be overstated (Paper I). While the climate justice movement typically voices demands for decentralization to enhance democratic control (Bäckstrand & Lövbrand, 2019), it cannot be assumed that the same demands would be agreeable to all adherents of this storyline. Illuminating adherents' envisioned strategies for implementing such alternative visions would indeed provide an interesting avenue for future research. The latter storyline, on the other hand, invokes national or human security framings to illuminate the lack of priority given to the fate of vulnerable states in a climate changed world. While risks to physical and ontological security from run-off climate change have been noted before, especially in relation to the situation of low-lying island states (Farbotko, 2019), security framings are largely absent from previous mappings

of climate policy discourses in the international sphere (Bäckstrand & Lövbrand, 2019; Stevenson, 2015; Stevenson & Dryzek, 2014). The prominence of the storyline of *Climate change as an urgent security threat* in the NDCs (expressed by 51.8% of states included in Paper I) points to the increasing diffusion of securitization as a frame for addressing climate change in international climate politics. Rather than accepting it as merely a response to accumulating observations of climate change effects, the productive effects of this securitized narrative need to be examined to illuminate how it shapes the idea of appropriate climate action responses (McDonald, 2013; Oels, 2012).

A second way to examine how climate change is constructed as a political problem is to identify how states perceive their appropriate role(s) in climate action. By exploring the governing mechanisms through which states propose to implement their planned climate actions and the governing resources these mechanisms rest upon, Paper II demonstrates that states portray their roles as climate actors in at least eight different ways. The diversity of roles for the state, ranging from *Information Collector* and *Process Designer* to *Regulator* and *Market Facilitator*, suggests that climate change is constituted as a multifaceted problem in need of a broad palette of governing practices. Paper II shows, however, that the roles of *Regulator* (93%), followed by *Facilitator* (76.2%) and *Market Facilitator* (74.4%) dominate. Employing the state's ability to conduct conduct through coercive means, a regulatory state suggests that the current game rules are not sufficiently conducive to climate-friendly behavior, pointing to a need for regulatory changes to meet established climate goals. This seemingly diverges from the proliferation of a softer, orchestrating role for the state envisioned in some global governance literature (Abbott, 2018). The emphasis on regulation should, however, be understood in light of the widespread portrayal of the state as a *Market Facilitator*, which implies a need for oversight and maintenance to ensure appropriately climate-friendly practices by market actors. The proliferation of intentions to employ legislative measures may thus be a result of an identified need for market-related regulations to make sure that markets produce wanted results, rather than a proposition to establish laws directly conducting citizens' behavior. Since an in-depth analysis of the *types* of legislative measures proposed by states exceeded the scope of Paper II, this finding poses intriguing questions for further research.

While Papers I and II demonstrate the diversity of ways in which climate change is constructed as a problem for government in the NDCs, it is evident that problematisations that lend themselves to calculation and assessment based on established, liberal practices dominate. This resonates with previous studies of climate policy discourses, which have pointed to the predominance of discourses suggesting the possibility to move toward a low carbon economy through win-win, cost-effective climate action (Bernstein, 2001; Bäckstrand & Lövbrand, 2019; Stevenson & Dryzek, 2014). At the same time, the thesis illuminates the simultaneous existence of multiple, sometimes conflicting, problem descriptions and action alternatives, which – if disregarded – could undermine the multilateral process. Indeed, when examining cross-national patterns of problematisations in the NDCs, the thesis shows that conventional lines of division among states largely persist. The

discursive cartography outlined based on the storylines identified in Paper I (Figure 5) suggests that there is a clear North-South dimension to climate change problematizations in the NDCs. While almost all states express the possibility of addressing climate change through current economic structures and adequate management of natural resources, states in the global South supplement these statements to a large extent with requests for enhanced inclusivity of climate action (Paper I). Through calls for empowerment of marginalized groups and expanded participation in decision-making, these states widen the problem description by highlighting how inequalities are entangled with climate change effects and responses. This pluralization is largely mirrored in the distribution of envisioned roles for the state in climate action, where high-income countries predominantly suggest the roles of *Regulator* and *Market Facilitator*, while states in the other income categories propose multiple roles drawing upon the different governing resources of the state (Paper II). This signals that climate change is not – and cannot be – considered in isolation from other issue areas, but necessitates an assortment of governing responses that coherently address climate change and development. In this way, the climate change problematizations found in the NDCs reiterate the North-South divisions that have characterized the multilateral process since the initiation of the UNFCCC (Gupta, 2010).

Figure 5. Discourse coalitions gathered around storylines identified in states' NDCs (Paper I). Originally published in Jernäs, M. & Linnér, B.-O. (2019). A discursive cartography of nationally determined contributions to the Paris Agreement. *Global Environmental Politics*, 55, 73-83.

5.2 Mobilizing Action: Functions of the NDC and Nonstate Actor Initiatives

Exploring how a phenomenon is turned into a problem for government entails analyzing both the ideas and the practices of governing (Miller & Rose, 2008). While Papers I and II exhibited the plurality of problem descriptions expressed in the NDCs, Papers III and IV turn our attention to the central instruments for intervention under the Paris regime: the NDC and the UNFCCC-led initiatives for engaging nonstate actors. Through an exploration of states’ ideas about the functions of the NDC as a governing instrument (Paper III) and the technologies through which nonstate actors are engaged in the Paris regime (Paper IV), the papers show that mobilization of state and nonstate climate action to a large extent rests upon techno-managerial ideas of quantification and benchmarking (Table 4). While the negotiations on the function(s) of the NDC also contain articulations of alternative perspectives highlighting areas of political struggles (Paper III), such articulations are largely absent from the efforts to engage nonstate actors in the Paris regime (Paper IV).

Table 4. Ways to mobilize climate action through identified NDC functions (Paper III) and technologies for engaging nonstate actors in the Paris regime (Paper IV).

MOBILIZING STATE AND NONSTATE CLIMATE ACTION		
NDC FUNCTIONS	Progress Tracker	Understand NDC effects compared to Paris goals; Understand implementation and achievement of NDCs
	Trust-Builder	Ensure trust among parties; Ensure trust in state climate action; Ensure credibility of NDC pledges
	Influencer	Share best practices on NDC preparation and climate action design
	Differentiator	Demonstrate leadership; Improve prerequisites for developing country action
	Gatekeeper	Ensure possibilities of NDC diversity; Ensure relevance and appropriateness of NDC to national context
TECHNOLOGIES TO ENGAGE NONSTATE ACTORS	Quantification	Create oversight of actions undertaken and their effects; Show potential of nonstate climate action
	Exemplification	Provide evidence of successful actions; Provide inspiration for future actions; Shape the idea of ‘good’ action
	Partnering	Emphasize harmonizing interests among state and nonstate actors; Posit nonstate actors as key collaborators

This thesis shows that states envision five functions of the NDC as a governing instrument: *Progress Tracker*, *Trust-Builder*, *Influencer*, *Differentiator*, and *Gatekeeper* (Paper III). It argues that these functions can be usefully interpreted as informed by two distinct rationalities – consensual and antagonistic – which draw upon different descriptions of the world to mobilize climate action under the Paris regime.

Informed by a consensual rationality, the functions of *Progress Tracker*, *Trust-Builder*, and *Influencer* point to the need for better information to make better decisions. Through techno-managerial interventions, such as standardizing emissions reduction disclosure, ensuring the use of common methodologies, and displaying innovative solutions, ambitious climate action can be unlocked. From this perspective, climate actions are complementary; there are no fundamental contradictions that cannot be solved by the means of enhanced information sharing and collaboration. As *Progress Tracker*, the NDC serves as a basis for assessing the sufficiency of climate action by enhancing understanding of the level of implementation of the NDCs and the effects of the NDC pledges in relation to the Paris (temperature) goal. In this sense, it corresponds to the many post-Paris projects seeking to quantify, aggregate, and extrapolate emissions reduction pledges to answer to the question of ‘How far does this take us?’ (Hsu et al., 2019a; Höhne et al., 2016; UNFCCC, 2015b, 2016, 2021). The NDC is also imagined as a *Trust-Builder* among states, between states and the public, and in the pledges made. While indicative of the wariness that has permeated previous attempts to conjoin effort-sharing and fairness, Paper III shows that, as a function of the NDC, trust-building is articulated in largely instrumental terms that center around enhanced communication. Through transparent, credible, and partly uniform reporting of pledges, the NDC is posited as a tool to counter interstate mistrust and suspicions of ‘free riding,’ and to transmit a convincing, reliable message of state-level climate action to provide comprehensible and durable conditions for nonstate actors. The function of *Influencer* continues this emphasis on the NDC as a communicative tool by pointing to the need for inspirational and innovative climate actions and good examples of how to fulfil the obligation of preparing and submitting an NDC. In this way, the NDC is used as a platform for exemplification which can induce learning while simultaneously providing an opportunity for states to convey their innovative capacities. These functions correspond to the catalytic cooperative model described by Hale (2020). Here, disclosure and transparency are part of creating an ‘informational environment’ where ‘epistemic resources’ can be generated (Hale, 2020, p. 88). From the perspectives of these functions, the NDC is portrayed as a tool that can contribute to enhanced collective knowledge on and ambition of climate actions.

The two remaining functions, *Differentiator* and *Gatekeeper*, diverge from this consensual approach by highlighting the profound political struggles that underwrite global climate governance. Rather than highlighting the need to exchange and enhance climate-related information, these functions are informed by an antagonistic rationality which posits the NDC as a platform for proclaiming the unequal and diverse context within which global climate governance is enacted. This antagonistic rationality refutes any description of

climate action as a neutral good, and instead suggests the need for global climate governance to navigate a world of structural and geopolitical contentions. As *Differentiator*, the NDC works to concretize long-standing conflicts over historical responsibility, epitomized in the UNFCCC principle of Common But Differentiated Responsibilities and Respective Capacities (CBDR&RC) (FCCC, Art. 3.1). This function is evident in requests for developed countries to demonstrate explicitly in their NDCs how they are taking the lead, and calls to take states' different preconditions for acting and reporting on climate action into consideration by, e.g., differentiating the demands placed on the format or scope of the NDC. In the function of *Gatekeeper*, national sovereignty takes center stage: Climate action needs to be designed and implemented in a way that is sensitive to the particular circumstances of the state in question. In this context, the NDC serves as a platform for outlining these circumstances and for holding form against apparent efforts to assimilate climate action internationally by reference to the risks of reopening the Paris mandate and the potentially adverse effects from context-insensitive climate action.

While the Paris Agreement constituted a breakthrough in terms of uniting almost all states under one agreement, Paper III demonstrates that the contentious issues that have characterized global climate governance over the course of three decades are still very much present. While this is not surprising – indeed, Keohane and Oppenheimer (2016) suggest that the Paris Agreement's discretion and vagueness on key issues were the reasons for it finally being adopted – the conflicting nature of the envisioned NDC functions demonstrates how different ideas about governing through the NDC are articulated under the Paris regime.

In contrast to state climate action, the governing technologies employed to mobilize nonstate climate action under the Paris regime do not exhibit the same range of diversity. In the UNFCCC-led initiatives for nonstate actor engagement, three technologies for conducting the conduct of nonstate actors were identified: *Quantification*, *Exemplification*, and *Partnering* (Paper IV). First, *Quantification* responds to an apparent need to aggregate the number of engaged actors, actions taken, and emissions reductions pledged, without which the potential of nonstate actors as emissions reducers is impossible to estimate. To this end, the online Global Climate Action Portal, which gathers, maps, and publishes nonstate actors' commitments, as well as periodic reports such as the UNFCCC Yearbook of Global Climate Action (which tells the story of the growing and diversifying groundswell of climate action across different locales), are introduced as tools for enabling oversight, aggregation, and infusing a sense of momentum. Second, through *Exemplification* of 'good practices,' 'lighthouse activities,' and 'climate action pathways' in reports and events, what is to be perceived as good, successful climate action is defined, in turn incentivizing nonstate actors to align their activities with the desirable sphere for action. Third, *Partnering* works to reconceptualize nonstate actors as essential climate actors in the Paris regime. One example of this is the institutionalization of so-called 'High-Level Champions,' which are representatives of the two states holding the current and subsequent COP presidency, and which aim to bridge state-nonstate spheres of climate action under the UNFCCC. Another

example is the organization of events where nonstate and state representatives present and discuss collaborative solutions, such as the Climate Action Summits or the Regional Climate Weeks. Through these techniques, nonstate actors are portrayed as an intrinsic part of achieving climate action under the Paris regime. In this way, *Partnering* seeks to illuminate harmonized interests across state and nonstate actors, in turn deemphasizing the tensions and struggles present in defining the appropriate scope, direction, and ambition of climate action.

The three technologies of government add up to a definition of appropriate nonstate climate action that heavily emphasizes the need for quantifiability, scalability, and replicability of actions and their effects. By tracking, mapping, and showcasing nonstate climate action, these technologies mold nonstate actors into responsible climate actors that align their actions with the Paris goals (Paper IV). The effect of this political rationality is the aggrandization of actors that can produce quantifiable, replicable actions with high mitigation potential (Paper IV). While this strategy certainly carries the potential for realizing large emissions reductions, as pointed out by High-Level Champion Nigel Topping in the November 2020 Race to Zero Dialogues⁷, it also works to obscure less resourceful actors whose climate actions do not necessarily lend themselves to quantification and upscaling. For instance, the Global Climate Action Portal, where nonstate actors are encouraged to register their climate action pledges, shows a distinct lack of registered actions from social movements and civil society actors (Paper IV). The project of quantification is further mirrored and amplified in scholarly research that has sought to determine the mitigation potential of nonstate actors. As noted in chapter 2, several studies have attempted to map, quantify, and assess the aggregated emissions reductions from cities, business, and international cooperative initiatives (Hsu et al., 2019b; Hsu et al., 2020; Kuramochi et al., 2020; Lui et al., 2020). By focusing attention on the search for coherence of disperse nonstate climate actions, both research and the technologies of government through which nonstate actors' climate conduct is conducted project an image of a joint journey toward a common goal that risks silencing political debate on the means and ends of government (Paper IV).

Papers III and IV have examined some of the core elements through which climate action is hoped to be mobilized under the Paris regime. Rather than perceiving the NDC and UNFCCC-led nonstate climate action initiatives as technical means of implementation, this thesis has approached them as governing instruments that produce certain effects. As demonstrated above, the NDC and the engagement of nonstate actors largely share a techno-managerial rationality that emphasizes a need for quantifiability and aggregability of actions to mobilize actors toward achieving the Paris goals (Papers III-IV). In this mobilization project, mapping and monitoring become central to enhance the comparability and implementation rate of pledges. When it comes to opportunities for resistance, the NDC and the initiatives to engage nonstate actors do, however, diverge; while the NDC is to some extent envisioned as a space for operationalizing claims for differentiation as well as

⁷ 2020 Race to Zero Dialogues closing session. Available at <https://www.youtube.com/watch?v=wrftCwLMx1w> (Accessed May 4, 2021)

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fending off perceived threats to national sovereignty (Paper III), the UNFCCC-led initiatives for nonstate actor engagement exhibit an absence of critical perspectives (Paper IV).

6 Meeting Urgency with Voluntarism: Coordination, Resistance, and Coexistence under the Paris Regime

The climate is changing. The World Meteorological Organization and the UN Environment Programme report record-high global mean temperature and atmospheric carbon dioxide concentrations, while the increase in global GHG emissions continues (UNEP, 2020; WMO, 2020). As the realities of a climate changed world are beginning to crystallize, the Paris Agreement is posited as one of the primary tools for global climate governance in the 21st century. As highlighted by UN Secretary-General António Guterres in the introductory quotation to this thesis: ‘We have a blueprint: the 2030 Agenda, the Sustainable Development Goals and the Paris Agreement on climate change. The door is open; the solutions are there.’⁸ This ‘blueprint’ is a ‘hybrid’ regime that combines top-down and bottom-up elements to ‘catalyze’ state and nonstate actors’ voluntary climate action contributions toward the Paris goals (Bäckstrand et al., 2017; Hale, 2020). Governance scholars have examined how the effectiveness and legitimacy of this new governance architecture can be enhanced (Bang et al., 2016; Bäckstrand & Kuypers, 2017; Dimitrov et al., 2019; Hermwille et al., 2019), but there has been a shortage of critical studies that explore how the Paris regime shapes and reshapes power relations in global climate governance and how this affects the idea of appropriate climate conduct. To fill this gap, this thesis has explored how climate change is governed through voluntarism under the Paris regime by examining the rationalities that inform global climate governance post-Paris and the technologies through which governing is conducted. The thesis asked how climate change is constructed as a political problem in the NDCs, and how climate action is mobilized through the NDC and UN-FCCC-led initiatives to induce nonstate climate action. To do this, the thesis made use of Foucault-inspired climate governmentality studies, which turn attention to the ways in which climate change is constructed as a problem for government and how it shapes the

⁸ Speech on ‘The State of the Planet’ by UN Secretary-General António Guterres, Dec 2, 2020. Available at <https://www.un.org/sg/en/content/sg/speeches/2020-12-02/address-columbia-university-the-state-of-the-planet> (Accessed May 6, 2021)

idea of appropriate climate conduct. Specifically, this implied refusing any view of climate change as a pre-given, neatly delineated policy problem to which a set of ‘solutions’ can be applied. Instead, the thesis followed climate governmentality studies’ interest in the construction of a policy problem in the first place – what has been referred to as the process of problematization (Bacchi, 2012; Miller & Rose, 2008) – and how particular problematizations enable and constrain the field of possible action.

The thesis shows that governing through voluntarism under the Paris regime is largely accomplished via techno-managerial coordination of disperse actors through quantification, comparison, and aggregation of states’ and nonstate actors’ climate action pledges. In this quest to gather data and find inspiring examples to build momentum and assess progress toward the supposedly common goal, this coordination endeavor portrays climate action as an inherently non-conflictual search for improved problem management. At the same time, the thesis also demonstrates that the Paris regime allows for the expression of resistance in both the contents and the functions of the NDCs. What emerges is a peculiar coexistence of seemingly conflicting ideas of gradual reform and radical change. While this can be perceived as an expression of the ingenuity of the Paris Agreement design and voluntarism as a governing strategy, this thesis argues that this mode of governing risks reducing the field of possible climate action to that which can be quantified and scaled up and, in turn, dismissing political struggles as a time-consuming nuisance. It also argues that this consensual, problem-solving rationality will be challenged as the continued work on operationalizing the Paris Agreement requires concretization of climate action results, and invites critical reflection upon the roles that global climate governance research should play in the quest for a decarbonized future. These arguments are laid out in more detail below.

6.1 Coordinating Responsible Climate Actors

Governing through voluntarism under the Paris regime is characterized by an apparent need to coordinate the diversity of climate action pledges to ensure their contribution toward the fulfilment of the Paris goals (Papers III-IV). Through efforts to map, register, and aggregate state and nonstate pledges, expectations on appropriate climate conduct under the Paris regime are formed: pledges should live up to standards of quantifiability, comparability, and aggregability. The NDC and the initiatives to incite nonstate climate action in this way wrap states and nonstate actors in schemes of goal creation, reporting, and reviewing, which contribute to shaping the idea of appropriate climate conduct (Triantafyllou, 2004). A responsible climate actor, in this context, systematically maps, transparently discloses, and regularly improves its quantified climate actions. Coordination, in this way, functions as a way of outlining the boundaries of voluntarism; through these efforts, the appropriate performance of voluntarism is shaped. Rather than a technical necessity to gain an overview of diverse pledges, coordination should instead be understood as a form of governing that shapes the field of possibilities for climate actors under the Paris regime. It embodies a techno-managerial rationality that posits climate action as inherently non-

conflictual; potential disputes are not necessarily evidence of fundamental differences but can be overcome through enhanced transparency and participation.

While this consensual techno-managerialism is most apparent in the pursuit of win-win opportunities and effective management of natural resources as an avenue for addressing climate change (Paper I), it also informs calls for broadening participation of vulnerable and disadvantaged groups in planning and designing climate actions (Paper I), building trust through the NDC (Paper III), and showcasing successful climate actions (Papers III-IV). What becomes apparent is that coordination works upon both state and nonstate climate action pledges. Like the NDC functions of tracking progress, building trust, and showcasing innovation (Paper III), the technologies of quantification, exemplification, and partnering (Paper IV) are similarly informed by a rationality of coordination. The ‘race’ toward the achievement of the Paris goals is narrated by encouragements to register pledges in the Global Climate Action Portal, appoint winners of Global Climate Action Awards, and draft reports on the successes of global climate action, which accentuates a need for quantifiable, replicable, and scalable nonstate climate actions (Paper IV).

What is at stake in the coordination of responsible climate actors is finding means for improved problem management in order to strengthen the ambition level and implementation rates of pledges. Rather than applying coercive tactics to steer behavior, solutions are found in the creation of a conducive environment within which actors can responsibly exercise their freedom. Coordination, in this way, works through what Dean (2010, p. 193) has called ‘practices of liberty’ to govern actors toward a governmental end. While the voluntary, nationally determined nature of the Paris design was fundamental to the agreement’s adoption (Keohane & Oppenheimer, 2016), the techniques of coordination, such as registering and reviewing, serve to responsabilize actors to ensure their appropriate use of voluntarism toward the fulfilment of the Paris goals. Through techniques for tracking progress, building trust, and exemplifying successful actions, the performance of a diverse set of autonomous state and nonstate actors is made calculable and, in turn, governable (Dean, 2010; Miller & Rose, 2008; Papers III-IV).

Central to this mode of governing is the construction of a common end goal. Miller and Rose (2008, p. 34) argue that constructing a common goal is an integral part of governing through freedom – or, ‘government at a distance’ – as it serves to convince actors that their ‘problems and goals are intrinsically linked.’ The efforts to rebrand the state-nonstate relationship as one of partnership based on common interests is one example of this where the emphasis on finding state-nonstate synergies to boost implementation serves to highlight the vitality of all actors on the common ‘race’ toward decarbonization (Paper IV). Geographically, temporally, and ideationally disperse actors are thereby constructed as a vibrant network of climate actors striving toward the same goal. What that goal is and how it should be achieved is, however, not explicitly up for debate. Moreover, the quest for coordination is underwritten by an apparent need for expert knowledge on emissions reduction aggregation, extrapolation, comparison, and data gathering, disclosure, and visualization. The proliferation of post-Paris research articles (Bertoldi et al., 2018; Hale et al.,

2020; Hsu et al., 2019b; Höhne et al., 2018), reports (NewClimate & Climate Analytics, 2020; SEI et al., 2020; UNFCCC, 2021), and online action trackers and disclosure portals⁹ exemplify the entanglement of global climate governance practice and research, and highlight the role of research in attempts to improve coordination by enhancing its effectiveness, legitimacy, and transparency. The attempted coordination of disperse climate actors that characterize governing through voluntarism under the Paris regime in many ways resonates with orchestration literature's descriptions of an incentivizing, rather than coercive, mode of governing (Abbott, 2018). Like the efforts to assess the aggregated emissions reductions of voluntary pledges, orchestration research is, however, primarily occupied with enhancing the effectiveness of orchestration toward the fulfilment of Paris goals (Bäckstrand & Kuyper, 2017). While its loosening of stagnant binaries of top-down versus bottom-up modes of governing does indeed provide important insights into the workings of contemporary global climate governance, orchestration literature reinforces collaborative ideals and falls short of critically interrogating the operations of power in governing arrangements. By contrast, this thesis regards coordination not as a necessity to navigate an increasingly complex world, but as a particular form of governing whose ordering effects should be scrutinized (Walters, 2004).

The above discussion points to the ways in which coordination is invoked to shape voluntarism under the Paris regime. It is argued that coordination works through a techno-managerial rationality that posits effective climate governance as a project of increased information disclosure and transparency. Through efforts to enhance mapping, registering, and aggregation of climate action pledges, the common journey toward the fulfilment of the Paris goals is presented as a search for consensual problem-solving. While this narrative of a common quest could potentially activate laggard actors, what is at risk here is the obscuration of conflicts on the appropriate ends and means of government. This thesis shows, however, that governing through voluntarism under the Paris regime also provides spaces for resistance to this consensual portrayal. We turn to these next.

6.2 Restricted Rooms for Resistance

While post-Paris governing efforts center around the project of coordination, this thesis has also demonstrated that the Paris regime contains articulations of resistance toward this techno-managerial approach to climate change governance (Papers I-III). By taking different entry points to study how climate change is constructed as a problem for government, the papers that are included in this thesis have pointed to the presence of a plurality of ideas on the nature of the problem at hand and the appropriate actions to solve it. Labelling climate change an urgent security threat, calling for systemic change based on a transformed

⁹ E.g., the World Resources Institute's *ClimateWatch*, Climate Analytics' and NewClimate Institute's *Climate Action Tracker*, and DIE and partners' *NDC Explorer*. Available at <https://www.climatewatchdata.org>; <https://climateactiontracker.org/>; <https://klimalog.die-gdi.de/ndc/> (Accessed Oct 1, 2021).

relationship with both nature and the economy (Paper I), highlighting the historically and presently unjust international system, and setting up boundaries to the expansion of international cooperation with reference to national sovereignty (Paper III) constitute examples of such resistance. Rather than a problem of coordination, these expressions of resistance point to the political struggles that underpin global climate governance and which prompt different answers to the question of how to properly address climate change. This is manifested as arguments on the appropriate prioritization, means, and goals of climate action, disrupting the idea of climate action as a mission of accomplishing effective implementation. By conveying alternative problematizations of climate change and a will not to be governed 'like that' (Foucault, 1997, p. 72), expressions of resistance serve to illuminate the non-inevitability of seemingly naturalized ways of governing climate change. Carving out spaces for resistance thus provokes and substantiates well-needed discussions on the ends, means, and effects of governing voluntarism through coordination.

The NDC can, in this respect, be employed as a mechanism for voicing resistance (Papers I-III). By providing an institutionalized, periodical, and publicly available space for the articulation of individual states' views, it allows diverse problem descriptions and action alternatives to surface. The diverging discursive expressions and envisioned roles for the state identified in Papers I and II show that states have made use of the NDC to elaborate on their national priorities, including context-specific challenges, opportunities, and vulnerabilities as well as articulations of critique against the current international political-economic system. NDC functions that highlight structures of injustice and contestations surrounding the appropriate limits of international coordination (Paper III) further underline the possibility to utilize the NDC as a space for articulating diverging ideas on the appropriate scope and form of post-Paris climate change governance, in turn illuminating some of the political struggles that surround the governance of climate change. The presence of conflicting ideas does not, however, automatically paralyze or disqualify this mode of governing. Rather, what is intriguing is how this plethora of storylines, roles for the state, and ideas about the functions of the NDC are all made to fit under the Paris regime (Papers I-III). To put it frankly, the Paris regime allows for the coexistence of calls for the death of capitalism and an extension of market solutions.

This peculiar plurality of ideas found in relation to the NDCs could be interpreted as an incarnation of the art of governing through voluntarism: By providing space for every actor to articulate their views on the appropriate means and goals of global climate governance, the NDC can induce a sense of ownership and provide a platform for dialogue on appropriate ways forward. Indeed, allowing for various action plans drafted in context-sensitive ways was one of the core arguments for the introduction of a pledge-based design (Falkner, 2016). Through 'discretion' and 'vagueness' (Keohane & Oppenheimer, 2016) and by relying on states' abilities to 'self-differentiate' (Maljean-Dubois, 2016), the 'gridlock' that had arguably characterized the multilateral process could be overcome (Falkner, 2016). To that end, the presence of numerous problem descriptions and solution suggestions in the NDCs (Papers I-II) suggests that this hybrid dream has indeed materialized. This thesis

warns, however, that the overwhelming emphasis on coordination laid out in the previous section works to delineate this plurality. While increasing the comparability of the NDCs could ease assessments of collective progress, the efforts to map, register, and aggregate pledges work to shape the idea of appropriate climate conduct. Hence, through seemingly technical efforts to increase the similarity of the NDCs, the boundaries within which resistance can be formulated are outlined.

What is striking is the lack of articulations of resistance in relation to initiatives seeking to mobilize nonstate climate action; the emphasis is distinctly placed on techno-managerial problem-solving to be achieved through actions that are quantifiable, scalable, and replicable (Paper IV). By presenting ‘global climate action’ as a project of synergic collaborations, this consensual rationality elevates resourceful actors that can participate on these terms. In their quest to build momentum toward implementation of the Paris goals, initiatives to engage nonstate actors risk limiting the discursive and practical space to that which is expressly about reducing emissions. The effect is silence on the political struggles that underpin transformation (Blühdorn & Deflorian, 2019; Death, 2011). In addition, the active shaping of a narrative on a comprehensive ‘groundswell’ or ‘momentum’ of nonstate climate actors ‘racing’ toward the achievement of the Paris goals firmly constructs UNFCCC-led nonstate actor engagement initiatives as the primary sphere within which responsible nonstate climate actors should exercise their agency. However, neither the necessity nor the effectiveness of including every type of nonstate climate action in the portals, reports, and events of the UNFCCC can be presumed – indeed, operating outside the bureaucracy of the UNFCCC might prove more flexible (Hadden, 2015; Hoffmann, 2011). While outside the scope of this thesis, exploring how nonstate actors problematize climate change in their voluntary pledges toward the Paris goals and how resistance is manifested outside the official platforms of the UNFCCC remain interesting research avenues. Nonetheless, the recent turn toward more explicit engagement of nonstate actors in the Paris regime warrants critical attention and this thesis represents a contribution in this regard.

This thesis argues that the overwhelming emphasis on the coordination of state and nonstate climate pledges through quantifiability, comparability, and aggregability risks suffocating articulations of political tensions by positing climate action as a matter of effective implementation. Importantly, this is not an evaluation of the sufficiency or appropriateness of either the dominant idea of coordination or any of the alternative ideas identified when it comes to addressing climate change. What this thesis is interested in is, instead, the forms of resistance that governing through voluntarism under the Paris regime makes space for. In this context, framing post-Paris governing arrangements as a ‘catalytic institution’ within which all actors will eventually align their conduct with the Paris goals (Hale, 2020) risks denoting resisters as ‘those not yet convinced’ rather than as expressors of fundamental political differences. This thesis shows that the Paris regime contains articulations of diametrically opposing ideas which may not necessarily be resolved through enhanced efforts of catalyzation. If not carefully addressed, expressions of resistance to the problem-

management-oriented, coordinative mode of governing through voluntarism might – in light of the massive emphasis on urgency – be portrayed as time-consuming nuisance (Death, 2011).

6.3 Conflicted Coexistence through the Paris Regime

Governing through voluntarism under the Paris regime has, thus far, materialized in a peculiar coexistence of climate change problematizations. In this way, it exhibits multiple features of a catalytic institution (Hale, 2020) where the NDC and initiatives to engage nonstate actors seemingly function as platforms for mobilizing a range of actors by allowing various problem descriptions, solution suggestions, and ambition levels to cohabitate (Papers I-III). As we move through the Paris Agreement’s ‘ambition cycle’ (Sælen, 2020), this plurality of ideas and practices will, however, be continuously challenged through mechanisms designed to review and enhance voluntary contributions. The protracted negotiations on the Paris Rulebook (which, at the time of writing, are not yet finalized), in which parties have attempted to draw out the operational details of the Paris Agreement, provide one example of how conflict lines may manifest when specified rules of operation are to be consensually agreed (Paper III). As a second round of new or updated NDCs are submitted, it will be curious to see if the NDC content exhibits the same diversity as the first round of NDCs scrutinized in this study, and what conclusions can be drawn regarding the responsabilizing effects of coordination pointed to in this thesis. Similarly, the ongoing processes to improve the Marrakech Partnership on Global Climate Action to ensure it ‘deliver[s] climate action’ in this ‘critical decade’ (Marrakech Partnership, 2021) should be interrogated to explore if and how the critique articulated in this thesis is reflected in its continued work.

Another intriguing event will undoubtedly be the 2023 global stocktake, in which states’ ambitions and results will be collectively assessed. As states (and, to some extent, nonstate actors) are asked to concretize the actions they have taken, the results thereof, and how they have operationalized issues of fairness, discussions on the appropriate way to portray and address climate change are bound to surface. Moreover, if the collective assessment determines current and planned pledges to be insufficient in relation to the achievement of the Paris goals – and the chances are that this is a likely scenario – the ensuing governing response(s) provides ample opportunity to interrogate the practical implementation of governing through voluntarism. While an insufficient commitment level and implementation rate could, indeed, be interpreted as a logical extension of the iterative, continuously learning dynamic of a catalytic institution (Hale, 2020), it should also fuel critical questions on the evaluation of and potential interventions into the current mode of governing. Rather than settling for examinations of how to coordinate better, global climate governance research should engage with the ordering effects of this mode of governing. Based on the results of this thesis, two questions for further research beyond the global stocktake should be: (i) Will efforts to coordinate pledges be increased, and, if so, how will this shape the definition of appropriate climate conduct?; and (ii) How would increased coordination

efforts affect the rooms for resistance in terms of providing space for dialogue and debate on the appropriate means and ends of government? The global stocktake should, in this way, be approached as a governing mechanism whose effects not only on the collective understanding of progress toward achieving the Paris goals but also on shaping climate conduct need to be illuminated.

Climate governance practice and research have been – and continue to be – entangled in the construction of a global response to climate change. As descriptions of the urgency of action abound, research plays an important role in exploring the effectiveness and legitimacy of potential paths forward. While the acuteness of climate change mitigation and adaptation is undeniable, scholars should, nonetheless, take care not to be seduced by the action-oriented language that largely portrays climate action as an instrumental project of implementation. Rather, the plurality of problem descriptions and action alternatives identified in this thesis demonstrates that the current mode of governing should be understood as a continuous negotiation on the appropriate scope, format, and ambition of a global response to climate change. To examine the ideas that underpin this negotiation then emerges as a crucial task for both research and practice. Consequently, this thesis invites critical reflection upon the roles that global climate governance research can and should play in the quest toward decarbonization. While global climate governance literature has indeed raised questions about the democratic legitimacy and participatory qualities of post-Paris governing arrangements (Bäckstrand & Kuyper, 2017; Chan et al., 2018), there is also a need to interrogate how those governing arrangements enable and constrain ideas and practices, and how they work to shape the idea of appropriate climate conduct (Triantafyllou, 2004). Critique should not be perceived as a stop-block to ambitious climate action, but as a persistent reminder of the need to continuously illuminate how power operates in specific modes of governing and how it shapes the field of possibilities. The daunting urgency of the climate change challenge must not be used as an excuse to disregard critique in order to bring about swift action. On the contrary, in any quest toward societal transformation, critical research has an important role to play in illuminating the non-inevitability of governing rationalities and practices by unceasingly posing questions on the means, ends, and effects of government and, in turn, carving out space for alternative imaginations (Cox, 1981; Foucault, 1997). In this regard, climate governmentality studies' attention to the ordering effects of governing serves to prompt important questions on how contemporary global climate governance arrangements enable and constrain action, and how governing through voluntarism toward the Paris goals is accomplished.

7 Conclusions

When the Paris Agreement was adopted in 2015, its voluntary design evoked both criticism and praise. Critics argued that the design surrenders important principles of justice, comprises perceivably weak enforcement mechanisms, and risks insufficient increases in ambition level (Allan, 2019; Cléménçon, 2016), while other (admittedly cautious) accounts highlighted the pledge-based system's universal reach, introduction of procedural obligations, and context-sensitive potential (Held & Roger, 2018). Since then, global climate governance research has sought ways to understand this new governing architecture and to enhance its effectiveness and legitimacy on the path toward achieving the Paris goals. This thesis has engaged with another question: *How* is climate change governed through voluntarism under the Paris regime? Rather than attempting to return a verdict on the Paris regime's success or failure, this thesis has argued that what is important are the ways in which governing through voluntarism under the Paris regime produces particular effects. It has examined how climate change is problematized in some of the core elements of the Paris regime, including the constitution of climate change as a political problem in states' NDCs and the efforts to mobilize climate action through the NDC and UNFCCC-led initiatives to engage nonstate actors. By exploring the political rationalities that inform governing through voluntarism under the Paris regime and the technologies through which it is accomplished, the thesis set out to illuminate its effects and widen the space for alternative ideas.

The thesis has shown that governing climate change through voluntarism is a multi-layered endeavor that includes coordination, resistance, and coexistence. It argues that governing through voluntarism is characterized by efforts of coordination that construct state and nonstate actors as responsible climate actors charged with keeping their conduct in check by displaying climate actions that are quantifiable, comparable, and aggregable. Coordination, in this way, posits climate action as an inherently non-conflictual project of problem management which risks silencing debates on the appropriate means and ends of governing climate change. At the same time, the thesis has illuminated how the voluntary nature of the Paris regime allows for a plurality of ideas on governing to coexist in both the contents and the envisioned functions of the NDC. Notably, such a plurality is not visible in UNFCCC-led initiatives to engage nonstate actors, which raises concerns regarding the

rooms for resistance of nonstate engagement in the Paris regime. In essence, coordination ought to be understood as a mode of governing whose productive effects should be critically examined. This thesis represents one contribution in this regard, and it urges global climate governance research to continue this excavation of political rationalities that inform current attempts to meet urgency with voluntarism.

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