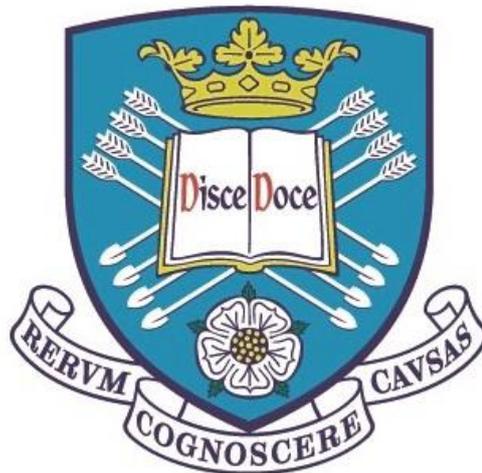


Global Justice and Climate Change: Bridging the Gap Between Theory and Practice

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Abstract

Climate change is one of the most significant problems facing humanity today. As scientific evidence continues to accumulate, it is becoming increasingly apparent that climate change requires an urgent global response. Without such a response, rising sea levels, severe weather patterns, and the spread of deadly diseases threaten the lives of both present and future generations. And yet, action on climate change has been characterized by lack of progress and break downs in communication. It is widely assumed that the global response to climate change has so far been inadequate. Alarmed by this lack of progress, the thesis aims to explore exactly why we should consider current global climate change action as inadequate, and what normative principles must underwrite a more just global response to climate change.

More specifically, the thesis will conduct a global justice based assessment of multilateral and networked climate change governance. This normative assessment of current practice is not only urgently needed in order to clarify the inadequacies of the climate change response, but also serves the purpose of bridging the gap between political theorists who concern themselves with the ethical dimensions of climate change, and scholars who focus on climate change governance practice. The thesis aims to illustrate that climate justice theorists can provide normative insights into current practice, which can inform the field of climate change governance and ultimately contribute to assessing how the response to climate change can become more just. In this way, the thesis provides a starting point for a discussion between two fields, which have traditionally been concerned with complementary, yet separate, research agendas. The thesis demonstrates that the bridging of these two fields can underwrite future thinking about a more just global response to climate change.

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List of Abbreviations

- ACCCRN** – Asian Cities Climate Change Resilience Network
- ADP** – Ad Hoc Working Group on the Durban Platform for Enhanced Action
- APP** – Asia-Pacific Partnership on Clean Development and Climate
- ATP** – Ability to Pay
- AWG-LC** – Ad Hoc Working Group on Long-term Cooperative Action
- BRICS** – Brazil, Russia, India, China, South Africa
- CBDR** – Common But Differentiated Responsibility
- CSLF** – Carbon Sequestration Leadership Forum
- CDM** – The Clean Development Mechanism
- COP** – Conference of the Parties
- EU** – European Union
- GHGs** – Greenhouse Gases
- IISD** – International Institute for Sustainable Development
- INDCs** – Intended Nationally Determined Contributions
- IPCC** – Intergovernmental Panel on Climate Change
- LMDCs** – Like Minded Group of Developing Countries
- MENA** – Middle East and North Africa
- SSA** – Sub-Saharan Africa
- PATP** – Polluter’s Ability to Pay
- PPP** – Polluter Pays Principle
- RGGI** – Regional Greenhouse Gas Initiative
- UNDP** – United Nations Development Program
- UNFCCC** – United Nations Framework for the Convention on Climate Change
- US** – The United States of America
- VCS** – Verified Carbon Standard

Introduction

Climate change is one of the most significant threats facing humanity today. As scientific evidence continues to accumulate, it is becoming increasingly apparent that climate change requires an urgent global response. Without such a response, rising sea levels, severe weather patterns, and the spread of deadly diseases threaten the lives of both present and future generations. And yet, action on climate change has been characterized by lack of progress and break downs in communication. It is widely assumed that the global response to climate change has so far been inadequate. Alarmed by this lack of progress, the thesis aims to show exactly why global climate change action should be considered inadequate, and what normative principles must underwrite a more just global response to climate change.

In order to achieve this, the thesis will conduct a global justice based assessment of climate change governance. This normative assessment of current practice is not only urgently necessary in order to clarify the inadequacies of the climate change response, but also serves the purpose of bridging the gap between political theorists who concern themselves with the ethical dimensions of climate change, and scholars who focus on current climate change governance practice. An investigation of the climate change justice field reveals that political theorists do not often concern themselves with the assessment of climate change governance.¹ At the same time, the ethical dimensions of current practice remain underexplored by scholars who specialize in climate change governance.² This is problematic, because climate change ethicists have the potential to provide normative insights into current practice, which could inform the field of climate change governance research and ultimately contribute to assessing how the response to climate change can become more just. For this reason, the thesis aims to bridge the gap between theory and practice, and provide an insight into what normative principles of climate justice can reveal about current climate change governance processes. This provides a starting point for a discussion between two fields, which have been traditionally concerned with complementary, yet separate, agendas. Overall, the thesis will demonstrate that the bridging of these two fields can underwrite future thinking about a more just global response to climate change.

¹ Vanderheiden, S., 'What Justice Theory and Climate Change Politics Can Learn From Each Other' in *Political Science and Politics*, 46 (2013), p. 18

² Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 68

The thesis is based on the assumption that an ethical discussion of the climate change problem is valuable and important, because climate change is arguably an ethical problem by its very nature and requires thorough normative assessment to be properly understood. This is largely because empirical realities of the climate change problem raise complicated distributive implications at almost every turn.³ For one, climate change results in an unequal distribution of burdens. Although climate change will have global consequences, the most detrimental effects are expected to occur in less developed countries, which have done least to contribute to the climate change problem.⁴ Developed countries, who are widely considered to be the main cause of climate change, are predicted to suffer least from the effects of climate change.⁵ At the same time, it is predicted that some of the richer, more advanced less developed countries will contribute 45% of global emissions by 2050.⁶ This raises complex questions about how much developed countries owe to less developed countries, and to what extent countries at different stages of development should be involved in climate change action. On top of this, climate change raises intergenerational distributive issues, because the most dangerous effects of climate change, which will cause widespread damage to the human population, are not predicted to occur for another fifty to one hundred years.⁷ This raises questions about what action present generations should take, which necessarily requires considering what future generations deserve.⁸ In this sense, climate change is arguably an ethical problem of determining the just distribution of burdens, and the thesis therefore aims to treat it as such.

Outline of the Thesis

The thesis aims to normatively assess the climate change problem from a global justice perspective and illustrate what this perspective can reveal about the current response to climate change. In order to achieve this, the thesis is split into three parts: Part I, 'Defining the Climate Change Problem,' Part II, 'Developing a Global Justice and Climate Change Position,' and Part III, 'Assessing Current Institutional Practice.' Part I aims to provide an overview of the climate change problem and the climate ethics literature which has emerged as a response to it. The review of scientific evidence in Chapter One provides an insight into the main causes and consequences of climate change. This ensures that the

³ Held, D., *Cosmopolitanism – Ideals and Realities* (Cambridge: Polity Press, 2010), p. 208

⁴ World Bank, 'World Development Report 2010 – Development and Climate Change' <http://www.worldbank.org/wdr2010> [accessed 28.03.2012], p. xx

⁵ Shue, H., 'Global Environmental and International Inequality' in *International Affairs*, 75 (1999), p. 537

⁶ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 13

⁷ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 8

⁸ Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 749

climate change problem is properly understood before it is assessed. Chapter Two then provides a critical assessment of four approaches found within the climate change ethics literature: statist, pragmatic, utilitarian, and cosmopolitan. It is in this chapter that the thesis defends the use of a cosmopolitan climate justice approach. Once it has been established that the cosmopolitan position is useful for the normative assessment of the climate change problem, the thesis moves onto Part II: 'Developing a Global Justice and Climate Change Position.'

Part II aims to develop normative principles which can be used for the assessment of current practice. It is split into three chapters, each of which considers past work on global justice and climate change, and builds on this in order to advance and solidify a unique cosmopolitan climate justice approach. Chapter Three concerns defining the scope of justice, and defends an approach which combines non-relational and relational elements in order to capture the normative demands which stem from the climate change problem. Chapter Four concerns defining the grounds of justice, and defends the idea that the right to health should ground the climate justice position, because this right arguably encompasses the basic human interests threatened by climate change. Chapter Five then uses the scope and grounds of climate justice developed in Chapters Three and Four to examine three main issues associated with the empirical conditions of climate change: what is owed to future generations, how to include less developed countries in climate change action, and who makes up the responsible 'collective' in collective action. In doing so, Chapter Five puts forward three demands of justice which must be met in order to achieve a condition of justice in the case of climate change. These three demands are considered normative principles which must underwrite a more just global response to climate change. Once these normative principles have been defined, the thesis moves onto its third and final part: Part III, 'Assessing Current Institutional Practice.'

Part III aims to illustrate what normative principles of justice can reveal about the global response to climate change, and is split into three chapters. Chapter Six provides a conceptual introduction for the evaluation of current practice. This chapter clarifies what is meant by current institutional practice, and outlines how this practice will be assessed. Chapter Six puts forward that both actors under the United Nations Framework for the Convention on Climate Change (UNFCCC) and actors involved in networked climate change governance processes have a moral responsibility to act on climate change because of their capacity to create a context within which the three demands of climate justice defined in

Part II can be met. The chapter also provides a methodological framework which is used for the assessment of current practice in Chapters Seven and Eight.

The assessment of the UNFCCC, in Chapter Seven, and networked climate change governance, in Chapter Eight, is considered exploratory, and does not purport to make definitive claims about the practice of the actors within these processes. Rather, the thesis aims, in these chapters, to illustrate how the climate justice framework developed in Part II can be used to assess current practice. A comprehensive assessment of the UNFCCC and networked climate change governance would not be possible within the scope of this thesis, which places an emphasis on both the development of a climate justice position and the application of this position. This allows somewhat limited space for the assessment of two complex processes of governance. Nevertheless, the assessment conducted in these chapters aims to tentatively illustrate what the application of the climate justice position developed in this thesis can reveal about climate change governance practice. The assessment in Chapters Seven and Eight will explore both normative commitments and current practices of climate change governance actors, and aims to point to positive trajectories as well as hindrances facing the global response to climate change. This climate justice focused assessment reveals actors in the UNFCCC and networked climate change governance have created a context in which the demands of climate justice could be met, but that these actors are falling short of addressing climate change in a just manner. These findings indicate that there is more work to be done in terms of pursuing a just response to the climate change problem.

Although the findings made in Chapters Seven and Eight may be intuitive in the sense that it is well known that actors under climate change governance are not adequately addressing the climate change problem, it is nevertheless valuable to systematically evaluate global climate change governance. This evaluation allows for research to go beyond intuition and assumption and provide specialized and detailed knowledge on the current situation. The importance of this cannot be understated, because intuitive thinking may not be adequate for explicating normative suggestions for reform toward a better condition of justice. A thorough examination of current practices provides a denominator from which to begin suggesting what is needed to ensure a just response to climate change. In this vein, Chapter Nine will summarize the main findings of the thesis and illustrate that the normative assessment conducted in Part III can be used to underwrite future thinking

about a more just global response to climate change. This concluding chapter will also discuss potential research directions which can be taken as a result of the main findings of the thesis.

Key Contributions of the Thesis

The thesis aims to make four key contributions. First, the thesis develops an original climate justice approach. Although assessing the climate change problem from a cosmopolitan perspective is not unique to the thesis, the thesis takes an original approach to climate justice. Chapter Three defends a unique scope of climate justice which is both relational and non-relational. This has previously not been attempted within the climate justice field. Furthermore, Chapter Four defends the idea that the right to health is sufficient to ground climate justice, a conception of the grounds of climate justice which has previously not been defended. These distinctive scope and grounds of justice are used in Chapter Five to develop three demands of justice, all three of which are unique to the thesis. In this way, the climate justice position developed in Part II of the thesis constitutes an original contribution to the climate change and global justice debate.

The second original contribution of the thesis can be found in Chapter Six, which specifies two types of actors who have a responsibility to act in the case of climate change: those under the UNFCCC and those involved in networked climate change governance. Although Simon Caney, a climate justice scholar, has recently discussed why actors with certain capabilities should be held responsible in the case of climate change, he does not explore any specific actors and their responsibilities in detail. Instead, Caney lists a few potential actors who could bear responsibilities, for example 'firms, trade unions, churches, states, and international institutions.'⁹ The thesis contributes to global justice and climate change literature by specifying two types of actors which can be held morally responsible for climate change action, and explaining what exactly they are responsible for.

The assessment of actors under the UNFCCC and within networked climate change governance in Chapters Seven and Eight constitutes the third original contribution of the thesis. These chapters illustrate what the climate justice position developed in this thesis can reveal about global response to climate change. An extensive review of the literature suggests that most climate justice theorists do not investigate how their theory relates to

⁹ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 136

current institutional practice.¹⁰ Furthermore, if they do, cosmopolitan scholars only seem to assess multilateral climate change governance processes, and not networked climate change governance processes.¹¹ Although multilateral climate change governance processes are perhaps more public or familiar, climate governance scholars explain that the center of gravity in the global response to climate change is shifting from the multilateral treaties to diverse activities outside of this process, referred to in this thesis as networked climate change governance processes.¹² Scholars of climate change governance go so far as to say that failing to explore networked governance processes would ignore the complexities of the climate change response.¹³ The thesis will therefore follow emerging convention and explore both types of climate change governance processes, adding a significant amount of original research to the climate justice debate. Importantly, although it is becoming conventional for climate change governance scholars to explore networked climate change governance, these scholars have not explored ethical issues or justice related concerns associated with networked climate change governance.¹⁴ Matthew Hoffman claims that significant ethical analysis of networked climate change governance is therefore crucial.¹⁵ The fact that a justice based assessment of networked climate change governance has so far not been attempted by cosmopolitan justice theorists or climate governance scholars is important. The thesis will serve to fill a gap in both climate change justice and climate change governance literature, and make an original contribution to both the fields by normatively assessing networked climate change governance.

The assessment of current practice in Chapters Seven and Eight furthers the aim of bridging the gap between climate justice theory and climate change governance research by illustrating what normative principles of climate justice can reveal about current practice. Bridging this gap constitutes the fourth and final original contribution of the thesis, because

¹⁰ See for example Page, E. A., *Climate Change, Justice and Future Generations* (Cheltenham, Edward Elgar Publishing Ltd., 2006), Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), or Hayward, T., 'Human Rights Versus Emission Rights: Climate Justice and the Equitable Distribution of Ecological Space' in *Ethics and International Affairs*, 21 (2007), pp. 431 – 450

¹¹ See for example, Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), Lawrence, P., *Justice for Future Generations: Climate Change and International Law* (Cheltenham: Edward Elgar Publishing Ltd., 2014), Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), Harris, P., *What's Wrong With Climate Change and How to Fix It* (Cambridge: Polity Press, 2013)

¹² Hoffman, M.J., *Climate Change Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 5

¹³ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 10

¹⁴ *ibid.*, p. 68

¹⁵ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 154

this has previously not been attempted. As was explained above, this is important because climate change justice theorists have the potential to provide normative insights into current practice, which could inform the field of climate change governance research and ultimately contribute to assessing how the response to climate change can become more just. Through this fourth and final contribution, the thesis hopes to provide a starting point for a discussion between two fields which are concerned with complementary, yet separate, agendas. As Steven Vanderheiden points out, this may narrow the gap between justice in theory and practice by illustrating that these fields have something to learn from one other.¹⁶ With this in mind, the concluding chapter of the thesis will concern how bridging the gap between these two fields can underwrite future thinking about a more just global response to climate change.

Wider Aims of the Thesis

Although the four contributions outlined above are important, they constitute contributions specific to climate justice and climate change governance literature. The thesis also has the wider aim of engaging with political debates on the global failure to address the climate change problem. The political debate surrounding climate change is often simplistic, misleading, and awash with confusion.¹⁷ By explaining what is normatively required to ensure a just response to climate change, and systematically pinpointing what is going wrong in climate change governance, the thesis hopes to provide clarity on the topic of climate change, which is 'urgently necessary' to inform current political debates.¹⁸ By providing this clarity, the thesis hopes to contribute to political debates which concern improving the global response to climate change. An improvement in the global response to climate change is important not only because of the urgency of the climate change problem, but because, as David Held argues, a breakthrough in just one global problem, like climate change, might provide enthusiasm for new models of global politics, and create space for the development of a more egalitarian, representative, cosmopolitan politics at a global level in general.¹⁹ With this wider aim in mind, the thesis now turns to Part I: Defining the Problem.

¹⁶ Vanderheiden, S., 'What Justice Theory and Climate Change Politics Can Learn From Each Other' in *Political Science and Politics*, 46 (2013), p. 22

¹⁷ Gardiner, S. M., 'Ethics and Global Climate Change' in *Ethics*, 114 (2004), p. 595

¹⁸ *ibid.*

¹⁹ Held, D., *Cosmopolitanism – Ideals and Realities* (Cambridge: Polity Press, 2010), p. 246

Part I: Defining the Climate Change Problem

Chapter One – Climate Change: A Global Problem

Introduction

This current chapter and the one following make up Part I of this thesis, 'Defining the Climate Change Problem.' These two chapters aim to provide an overview of the climate change problem and the climate ethics literature which has emerged as a response to it. The current chapter will outline the climate change problem by reviewing the latest scientific evidence. The chapter will make use of reports by the Intergovernmental Panel on Climate Change (IPCC), as this body provides the most comprehensive and up to date review of the scientific literature. The chapter will provide a detailed summary of the climate change problem, and will include an explanation of its causes and predicted effects. This ensures that the thesis is built on comprehensive empirical evidence, provided by leading scientific experts and reviewers. Each chapter following this first chapter will refer back to the evidence presented here as a basis for normative assessment. It is important to provide this empirical basis, because the thesis concerns the normative assessment of an existing problem, and this problem must be properly understood before it can be assessed.

The chapter will be organized as follows. The first part of the chapter will provide an overview of the IPCC in order to illustrate why this particular body has been chosen as the basis for scientific evidence for the thesis.¹ The second part of the chapter will define climate change and its main causes, before providing an overview of the key predicted consequences. This will involve a discussion of which human interests are at stake. The third part of the chapter will discuss why less developed countries and future generations should be considered the primary victims of climate change. Finally, the fourth part of the chapter will argue that collective action is required sooner rather than later to avoid irreversible damage. The overall aim of the chapter is to help clarify what an ethical discussion on climate change should include, which is important for the thesis, as it aims to provide an ethical discussion of the climate change problem.

The Intergovernmental Panel on Climate Change

The IPCC was set up in 1988 by the World Meteorological Organization and the United Nations Environment Program. It is considered to be the leading authority for the

¹ It should be noted that the scientific evidence outlined here will be considered as best available evidence, not as fact. Even though the evidence has been thoroughly researched by thousands of scientists, the thesis accepts a certain level of epistemic uncertainty, which implies that it is possible that the evidence will change in the future.

assessment of the climate change problem.² The IPCC is tasked with reviewing and assessing the most recent scientific, technical and socio-economic information on climate change produced worldwide. Through the review of scientific evidence, the 'IPCC aims to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts.'³ The IPCC does not conduct independent research, nor does it monitor climate related data or parameters. Because of this, the IPCC claims to reflect a range of views and expertise, and provide objective assessment of the state of climate research.⁴ This is the first reason the IPCC reports have been chosen to form the basis of the scientific evidence in this thesis. The IPCC claims to be unbiased and explicitly states that it does not have an agenda besides providing evidence. It aims to be policy relevant but policy-neutral, and stays away from policy prescription: the reports the IPCC produces aim to reflect technical assessment of experts rather than government positions.⁵ This is important for the thesis, since bias in the scientific evidence may skew the climate justice position. The IPCC represents unbiased data which will not point the climate justice position towards any particular agenda.

In addition, the IPCC provides a scale of scientific information that is unparalleled at the international level. It is open to all member countries of the United Nations and World Meteorological Association, and currently has 195 members. For the 2014 report, the IPCC hired 831 scientific reviewers from around the world, and analyzed over 9,000 peer reviewed scientific papers.⁶ This amount of information would be impossible to disseminate by any one person, and the IPCC therefore provides a unique overview of the scientific literature. This is the second reason the IPCC has been chosen as the basis for scientific evidence in the thesis. IPCC reports represent a global scientific view which is based on the work of thousands of scientists and climate experts. This is important for the thesis as it attempts to capture the global state of scientific research, in order to ensure that relevant information is not overlooked. The IPCC provides the means to achieve this.

² Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 145

³ Intergovernmental Panel on Climate Change, 'Organization'
<http://www.ipcc.ch/organization/organization.shtml> [accessed 06.01.2015]

⁴ Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 145

⁵ Intergovernmental Panel on Climate Change, *IPCC First Assessment Report*,
https://www.ipcc.ch/ipccreports/1992%20IPCC%20Supplement/IPCC_1990_and_1992_Assessments/English/ipcc_90_92_assessments_far_overview.pdf [accessed 12.02.2013], p. 51

⁶ Intergovernmental Panel on Climate Change, 'Activities'
http://www.ipcc.ch/activities/activities.shtml#_UMzUkuB2MiA [accessed 06.01.2015]

Finally, the IPCC is regarded as a leading body within the climate science community. The IPCC has so far released five reports, in 1990, 1995, 2001, 2007 and 2014. These successive reports have demonstrated a growing level of expertise and been met with enhanced credibility.⁷ The first report in 1990 represented little more than ‘an interesting hypothesis,’ and by the 2007 Fourth Report, the IPCC had garnered overwhelming scientific support.⁸ This level of support for the evidence presented by the IPCC is the third and final reason why the thesis makes use of the IPCC reports as the basis of scientific evidence. For the reasons above, the chapter will make reference to the reports of the IPCC, or more specifically the summaries for policy makers from these reports, as they provide a succinct summary of the key evidence.

Climate Change and Its Causes

Under the definition provided by the IPCC, climate change refers to a change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer.⁹ This definition is quite general, and in order to comprehend the empirical realities of the climate change problem, its main causes and key projected effects must be understood. In terms of causes, the 2014 IPCC report states that it is *extremely likely* (95% chance) that human influence has been the dominant cause of climate change since the mid-20th century.¹⁰ The significance of this high level of certainty is considerable as it reflects the views of over 9,000 scientific peer reviewed papers. Therefore, it can be assumed that the latest scientific evidence, humans are the main cause for climate change.

Humans cause climate change by increasing the naturally occurring greenhouse gases (GHGs), which warm the atmosphere and surface of the earth. More specifically, emissions from human activities are substantially increasing the atmospheric concentration of carbon dioxide, methane, chlorofluorocarbons and nitrous oxide, referred to under the umbrella term of GHGs.¹¹ The human induced atmospheric increase of these gases enhances the greenhouse gas effect, resulting in an additional warming of the earth’s surface.¹² What is

⁷ Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 145

⁸ *Ibid.*

⁹ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 30

¹⁰ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 5

¹¹ Intergovernmental Panel on Climate Change, *IPCC First Assessment Report, 1992* https://www.ipcc.ch/ipccreports/1992%20IPCC%20Supplement/IPCC_1990_and_1992_Assessments/English/ipcc_90_92_assessments_far_overview.pdf [accessed 12.02.2013], p. 37

¹² *Ibid.*

potentially dangerous about this warming is the long-lived nature of GHGs. Atmospheric concentrations of GHGs adjust slowly to changes of emissions, which means present day emissions will continue to exist in the atmosphere for centuries to come.¹³ As the concentration of GHGs increases, their greenhouse effect increases. Eventually, the atmospheric concentrations of GHGs lead to irreversible changes in the climate.¹⁴ Put more simply, over time, increased GHGs emitted by humans cause climate change. Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes.¹⁵

The IPCC's evidence of the relationship between humans, GHGs and climate change has been carefully assembled from a number of sources. Global-scale observations of temperature began in the mid-19th century, and more comprehensive and diverse sets of observations are available for the period from 1950 onwards.¹⁶ The IPCC makes use of remote sensing from satellites, paleoclimate reconstructions which date back to millions of years, and direct measurements of observable climate change effects. Together these observations provide a comprehensive view of the variability and long-term changes in the atmosphere, the ocean, the cryosphere, and the land surface.¹⁷ Therefore, it can be assumed that the IPCC is correct about the changes in climate and how they relate to human activity, as their findings are based in triangulated and thorough scientific research.

Key Effects of Climate Change

The outline of the key effects of climate change presented here will be based in the robust findings of the IPCC, defined as 'findings which hold under a variety of approaches, methods, models and assumptions, and are expected to be relatively unaffected by uncertainties.'¹⁸ The IPCC has observed and predicted several key consequences of climate change. The first, and perhaps most well-known, is warming of the planet, which is an on-going effect carefully observed by scientists over the last few decades. According to the

¹³ Intergovernmental Panel on Climate Change, *IPCC First Assessment Report*, https://www.ipcc.ch/ipccreports/1992%20IPCC%20Supplement/IPCC_1990_and_1992_Assessments/English/ipcc_90_92_assessments_far_overview.pdf [accessed 12.02.2013], p. 52

¹⁴ *Ibid.*, p. 53

¹⁵ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 12

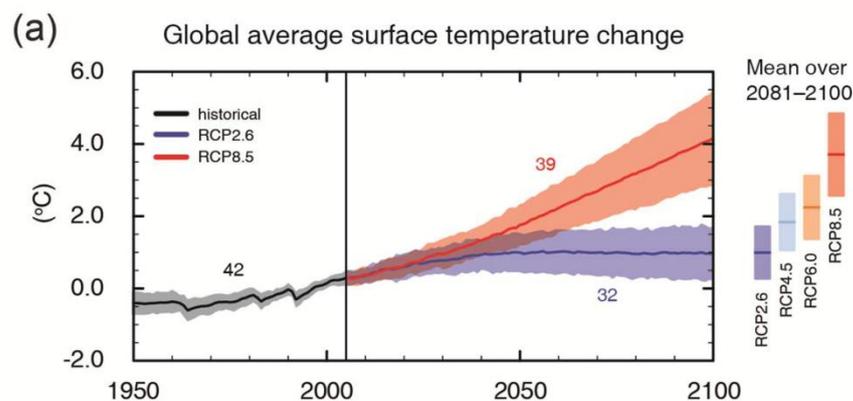
¹⁶ Intergovernmental Panel on Climate Change, *IPCC First Assessment Report*, https://www.ipcc.ch/ipccreports/1992%20IPCC%20Supplement/IPCC_1990_and_1992_Assessments/English/ipcc_90_92_assessments_far_overview.pdf [accessed 12.02.2013], p. 53

¹⁷ *Ibid.*

¹⁸ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 72

latest IPCC report, warming of the climate system is now considered unequivocal.¹⁹ Warming has been detected in changes in surface and atmospheric temperatures as well as in temperatures of the upper hundred meters of global oceans over the last decades.²⁰ The most up to date findings suggest that these observed changes in temperature are unprecedented.²¹ Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850.²² The latest research shows that there has been a warming of 0.85°C over the period of 1880-2012 in average land and ocean surface temperatures.²³ The IPCC does not project that this warming will slow down in the coming decades and centuries. For the next two decades a warming of about 0.2°C per decade is projected for a range of emissions scenarios provided by the IPCC.²⁴ Afterwards, temperature projections increasingly depend on specific emissions scenarios, which in turn depend on what action is taken on cutting emissions.²⁵

The IPCC estimates that if current emissions trends continue, global temperatures will pass the threshold of 2°C warming above preindustrial levels sometime between 2050-2100.²⁶ This is illustrated in the graph below.²⁷



¹⁹ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 3

²⁰ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 39

²¹ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report Working Group I: Summary for Policy Makers, 2014* http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf [accessed 30.09.2013], p. 3

²² *Ibid.*

²³ *Ibid.*

²⁴ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 45

²⁵ *Ibid.*

²⁶ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 8

²⁷ *Ibid.*, p. 32

The 2°C threshold is important because the IPCC claims that in order to avoid dangerous climate change the global change in temperature must be kept at or below 2°C relative to preindustrial levels.²⁸ Although this cut off point is becoming increasingly difficult to avoid due to current inaction, the IPCC maintains, at the time of writing, that there are multiple mitigation pathways that are *likely* to limit warming to below 2°C.²⁹ These pathways would require substantial emissions reductions over the next few decades: emissions would have to be cut by 40% - 70% by 2050 compared to 2010, and would need to be near zero or below in 2100.³⁰ This requirement will be further discussed in Chapters Four, Five, Seven and Eight. For now, the current chapter merely serves to illustrate that the IPCC stresses that in to avoid dangerous climate change, the global temperature change must be kept at or below 2°C.

The warming which has taken place to date is already having effects on weather patterns. One effect that can be observed at present is the widespread melting of ice, which causes sea levels to rise. According to the IPCC, over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease.³¹ The IPCC claims that it is *very likely* that the Arctic sea ice cover will continue to shrink and thin and that Northern Hemisphere spring snow cover will decrease during the 21st century as global mean surface temperature rises.³² In addition, it is predicted that global glacier volume will further decrease.³³ This widespread melting of ice is having an observable effect on sea level rises. According to the IPCC, over the period 1901–2010, global mean sea levels rose by 0.19 meters.³⁴ This rise is significant, as the rate of sea level rise since the mid-19th century has been larger than the mean rate during the previous two millennia.³⁵ The IPCC projects that the atmosphere and oceans will continue to warm during the 21st century. Heat will penetrate from the surface to the deep ocean and affect

²⁸ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

²⁹ *Ibid.*

³⁰ *Ibid.*

³¹ *Ibid.*, p.. 5

³² *Ibid.*, p. 17

³³ *Ibid.*

³⁴ *Ibid.*, p. 6

³⁵ *Ibid.*

ocean circulation.³⁶ As a result, global mean sea levels will continue to rise during the 21st century, and could rise by a further 0.98 meters by 2100.³⁷

There are several consequences predicted if the temperatures continue to rise, ice continues to melt, and sea levels continue to rise. These include increased instances of heavy precipitation, floods, droughts and heat waves.³⁸ It is predicted that by the 2080s, many millions more people than today are projected to experience floods every year.³⁹ These will be caused by sea-level rises as well as heavy precipitation events, and will result in a number of consequences including damage to crops, soil erosion, inability to cultivate land due to waterlogging of soils, adverse effects on quality of surface and groundwater, contamination of water supply, increased risk of death, injuries and infectious, respiratory and skin diseases.⁴⁰ At the same time, increased occurrence of droughts and heat waves are predicted as a result of rising global temperatures. Increased droughts will have negative consequences, including land degradation, lower yields of crops due to crop damage and failure, increased livestock deaths, increased risks of wildfire, more widespread water stress, increased risk of food and water shortage, increased risk of malnutrition, and increased risk of water and food borne diseases.⁴¹ Heat waves will also have destructive consequences, such as reduced agriculture yields in warmer regions due to heat stress, increased danger of wildfires, increased water demand, water quality problems, increased risk of heat related mortality, and poor quality of life for those without appropriate housing.⁴²

As can be seen from these predicted effects, a number of human interests are at stake according to climate change predictions. The first is the interest in food, as agriculture and livestock will be negatively affected, meaning that there will be less food available, particularly in regions dependent on local agriculture. A second is the interest in secure shelter, since wildfires, rising sea levels, and floods threaten homes, and will displace hundreds of thousands. These displaced people may end up in refugee camps, in living conditions that are not permanent or secure. A third is the interest in clean water, as the

³⁶ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 17

³⁷ *Ibid.*, p. 18

³⁸ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 53

³⁹ *Ibid.*, p. 48

⁴⁰ *Ibid.*, p. 53

⁴¹ *Ibid.*

⁴² *Ibid.*

changeable weather patterns will have negative effects on water supply. Not only will water supplies be threatened by contamination at surface and ground level due to flooding and precipitation, but there is projected to be an increased demand for water as temperatures rise. This means many will lack access to clean water, particularly in regions where there are no alternatives available. Finally, the interest in health is threatened. The health status of millions of people is projected to be affected through, for example, increases in malnutrition; increased deaths, diseases and injury due to extreme weather events; increased burden of diarrheal diseases; increased frequency of cardio-respiratory diseases due to higher concentrations of ground-level ozone in urban areas related to climate change; and the altered spatial distribution of some infectious diseases.⁴³ The human interests threatened by climate change will be further discussed in the rest of the thesis, particularly in Chapter Four, which will provide an exact definition of human interests. For now, the current chapter merely aims to point to the variety of human interests which are at risk, and turns to the question of who is predicted to have their interests threatened.

Who will be Most Affected?

It is important to discuss who the main victims of climate change are likely to be, as the thesis is concerned with questions of redistributing benefits and burdens, and it must be clear who will bear the burden of climate change according to the best available scientific evidence. According to the IPCC, climate change impacts will not be distributed evenly.⁴⁴ The scientific evidence points to two groups which will be most affected by climate change: future generations, and those living in less developed countries. The IPCC claims that in order to avoid dangerous climate change, the global change in temperature must be kept at or below 2°C.⁴⁵ The graph provided above illustrates that this crucial 2°C temperature change will not occur until 2050 - 2100. Therefore, when discussing the human interests threatened by climate change, it is implicit that they are, in large part, interests of those who will exist in the future. This is why future generations must be very carefully considered in ethical and moral discussions on climate change. The issue of future generations and what is owed to them will be discussed throughout the thesis, especially in Chapter Five, which concerns outlining what exactly is owed to future generations under

⁴³ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 48

⁴⁴ Intergovernmental Panel on Climate Change, *IPCC Second Assessment Report, 1995* <https://www.ipcc.ch/pdf/climate-changes-1995/ipcc-2nd-assessment/2nd-assessment-en.pdf> [accessed 12.02.2013], p.14

⁴⁵ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

the cosmopolitan approach defended in this thesis. The current chapter merely serves to illustrate why future generations are an important consideration when discussing the climate change problem.

The second group which is predicted to be most affected by climate change consists of those living in less developed countries. According to the IPCC, the impacts of climate change will fall disproportionately upon developing countries.⁴⁶ In addition, the World Bank estimates that less developed countries will bear 75-80% of the burdens of climate change.⁴⁷ This is for two broad reasons. First, less developed countries are located in areas that will be hardest hit by climate change effects.⁴⁸ Evidence increasingly points to the fact that less developed areas generally face greater risk, for example in dry areas and mega deltas.⁴⁹ Agricultural production, including access to food, is projected to be severely compromised in many African countries, which will adversely affect food security and exacerbate malnutrition.⁵⁰ Furthermore, substantial risks due to sea level rise are projected particularly for Asian mega deltas and for small island communities.⁵¹ In addition, by the 2050s, freshwater availability in Central, South, East and South-East Asia, particularly in large river basins, is projected to decrease.⁵² Finally, endemic morbidity and mortality due to diarrheal disease primarily associated with floods and droughts are expected to rise in East, South and South-East Asia due to projected changes in the hydrological cycle.⁵³ This is in contrast with richer parts of the world. For example, in New Zealand, initial benefits of climate change, such as longer growing seasons, are projected in some regions.⁵⁴ Similarly, in North America, climate change is projected to increase aggregate yields of rain-fed agriculture by 5-20% in the first few decades.⁵⁵ Of course, richer regions will also eventually be hit by negative climate change consequences, but not as severely as less developed countries, because less developed countries have low adaptive capacity. This is the second reason less developed countries will be harder hit by climate change. These countries often

⁴⁶ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report: Summary for Policy Makers, 2001* http://www.grida.no/publications/other/ipcc_tar/ [accessed 12.02.2013], p. 12

⁴⁷ The World Bank, 'World Development Report 2010 – Development and Climate Change' (Washington DC: The World Bank, 2010) <http://www.worldbank.org/wdr2010> [accessed 30.03.2011], p. xx

⁴⁸ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report: Summary for Policy Makers, 2001* http://www.grida.no/publications/other/ipcc_tar/ [accessed 12.02.2013], p. 12

⁴⁹ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 65

⁵⁰ *Ibid.*, p. 50

⁵¹ *Ibid.*, p. 65

⁵² *Ibid.*, p. 50

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*, p. 52

have other problems, such as poverty or weak infrastructure, which create conditions of low adaptive capacity to climate change.⁵⁶ Less developed countries therefore may not have the financial capacity or infrastructure necessary to combat the ill effects of climate change, and will as a consequence not be able to prepare or defend themselves against effects like flooding, droughts, or rising sea levels as effectively as richer states.

The category of less developed country is quite complex, as this encompasses countries who differ greatly in development levels. For this reason, Chapter Five of the thesis will spend time explaining how less developed countries can be differentiated, and what this means in terms of what they are owed or what they may owe in the case of climate change. For example, richer or higher polluting less developed countries such as China or Brazil arguably have more of a responsibility to lower emissions than a country such as Ethiopia, which has limited financial resources and very low emissions. In fact, countries such as Ethiopia may be owed assistance to deal with climate change effects, rather than being responsible for climate change action. Chapter Five will elaborate on these differences between less developed countries. For now, the current chapter merely serves to highlight that less developed countries present one of the main groups of victims of climate change. Now that the key effects of climate change have been discussed and the most vulnerable groups have been identified, it is important to discuss what kind of action is needed to combat climate change.

Collective Action and Irreversible Damages

Combatting climate change will necessarily require action, as the problem will not disappear on its own. The IPCC asserts that if current action on climate change stays the same, global GHG emissions will continue to grow over the next decades.⁵⁷ The IPCC estimates that because economic growth is set to persist, and global population is set to increase, mean global surface temperatures could rise by as much as 4.8°C by 2100 without additional efforts to reduce GHG emissions beyond those in place today.⁵⁸ Therefore, it seems clear that further action must be taken if there is to be any hope of reducing the negative effects of climate change. What action to take against climate change is a complex matter, and will be discussed throughout the thesis. However, there are a few general

⁵⁶ Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report: Summary for Policy Makers, 2001* http://www.grida.no/publications/other/ipcc_tar/ [accessed 12.02.2013], p. 12

⁵⁷ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 72

⁵⁸ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

assumptions which can be made about what will be necessary for climate change action. The first assumption is that both adaptation and mitigation will be necessary to combat climate change. Mitigation refers to cutting back on emissions, and adaptation refers to tactics which can be taken to adjust to climate change effects, such as building sea walls. Many impacts of climate change can potentially be reduced, delayed or avoided by mitigation.⁵⁹ Successful mitigation can be achieved by deployment of a portfolio of technologies that are currently available and some that are expected to be commercialized in coming decades, provided that appropriate and effective incentives are in place and barriers removed.⁶⁰ Examples of mitigation include use of renewable energy, changes in consumption patterns, improving increased fuel efficiency or using biofuels, making new buildings more sustainable, and making use of waste as fuel.⁶¹ With these types of changes, it is possible to significantly reduce emissions, reducing the risks of climate change.⁶²

However, there is *high confidence*, according to the IPCC, that mitigation alone cannot avoid all climate change impacts.⁶³ Adaptation will be necessary both in the short term and longer term to address impacts resulting from the warming that would occur even for the lowest emissions level scenarios assessed.⁶⁴ In other words, even if all emissions were halted, the emissions that already exist in the atmosphere will still cause changes in the climate. Therefore, adaptation measures will be required to cope with the effects of climate change. Examples of adaptation include water reuse, rainwater harvesting, adjustment of planting dates and crop-variety, crop relocation, erosion control, building seawalls and storm surge barriers, creating heat-wave action plans, protecting water supplies, inoculating populations against certain diseases, and strengthening infrastructure.⁶⁵ It should be noted that adaptation alone is not expected to cope with all the projected effects of climate change, especially not over the long term as impacts increase in magnitude.⁶⁶ It is not possible to simply continue to emit at current levels, and rely on adaptation alone. Humans will not be able to adapt to certain conditions if they become irreversible, as will be explained below, and further discussed in Chapter Four. For

⁵⁹ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 73

⁶⁰ *Ibid.*

⁶¹ *Ibid.*, p. 60

⁶² *Ibid.*, p. 65

⁶³ *Ibid.*

⁶⁴ *Ibid.*

⁶⁵ *Ibid.*, p 57

⁶⁶ *Ibid.*, p. 56

this reason, both adaptation and mitigation are necessary, and more importantly can work together to significantly reduce the risks of climate change.⁶⁷

The second general assumption which can be made about climate change action is that the response to climate change will necessarily have to be collective. The IPCC explains that climate change action will require a high degree of international cooperation.⁶⁸ Climate change is a truly global problem. In order to combat it, every state will have to commit to a climate change deal. The highest emitting states will have to agree on targets, and those with lower emissions will have to ensure that their emissions do not exceed global limits as they continue to develop. Less developed countries may not be able to cut emissions immediately, and may require help to develop in a sustainable way. These factors must be taken into consideration in order to ensure a global climate deal is accepted. This need for collective action will be discussed throughout the thesis, especially in Chapter Five, which concerns defining who the 'collective' in collective action is. The purpose of this current chapter is to point out that action will have to be collective, as no one nation can stop climate change on its own.

Collective action will not only be required in the short term. The latest IPCC report claims that aspects of climate change will persist for many centuries even if emissions are stopped, which implies a substantial multi-century climate change commitment.⁶⁹ Sustained global collective action will not be easy to achieve or maintain. However, it is important that action is taken sooner rather than later, in order to avoid irreversible damages. As the IPCC explains, delayed emissions reductions significantly constrain the opportunities to achieve lower stabilization levels and increase the risk of more severe climate change impacts.⁷⁰ Unmitigated climate change would, in the long term, be likely to exceed the capacity of natural, managed and human systems to adapt.⁷¹ This could lead to some impacts that are abrupt or irreversible, depending upon the rate and magnitude of climate change.⁷² These

⁶⁷ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 65

⁶⁸ Intergovernmental Panel on Climate Change, *IPCC First Assessment Report*, https://www.ipcc.ch/ipccreports/1992%20IPCC%20Supplement/IPCC_1990_and_1992_Assessments/English/ipcc_90_92_assessments_far_overview.pdf [accessed 12.02.2013], p. 60

⁶⁹ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report Working Group I: Summary for Policy Makers, 2014* http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf [accessed 30.09.2013], p. 19

⁷⁰ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 73

⁷¹ *Ibid.*

⁷² *Ibid.*, p. 53

irreversible changes include mass extinction of animals, changes in marine ecosystem productivity, damage to fisheries, changes in oceanic oxygen concentrations and decreased terrestrial vegetation.⁷³ These changes would have severe and detrimental impacts on the human population.⁷⁴ It is therefore paramount that action is taken sooner rather than later.

Conclusion

This chapter outlined the climate change problem by reviewing the latest scientific evidence, provided by the IPCC. The chapter began with a summary of the climate change problem, and included an explanation of its causes and predicted effects, as well as a discussion on which human interests are at stake. In addition, the chapter provided an overview of who will be most affected by climate change, namely less developed countries and future generations. Finally, the chapter discussed the importance of collective action to prevent irreversible damages. Now that the empirical background conditions of the climate change problem have been outlined, the thesis can move onto the ethical debates which have emerged as a response to climate change.

⁷³ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 53

⁷⁴ *Ibid.*

Chapter Two – Climate Ethics Literature: Assessing Four Approaches

Introduction

This chapter makes up second half of Part I of the thesis: ‘Defining the Climate Change Problem.’ The previous chapter, Chapter One, provided an overview of the key features of the climate change problem, using the latest scientific evidence on the subject. The current chapter serves as a review of the normative literature that has emerged as a result of this scientific evidence, namely climate change ethics literature. More specifically, the chapter will explore and critically assess four approaches found within climate change ethics literature: statist, pragmatic, utilitarian, and cosmopolitan. The first three approaches are arguably in opposition to the global justice approach, and it is therefore worthwhile to defend the use of cosmopolitanism against these potential critics. In doing so, the chapter will argue that the cosmopolitan approach presents the most useful approach for a normative assessment of the climate change problem because cosmopolitan theories of global justice can best address the complex issues which arise as a result of the empirical conditions of climate change. This chapter will lay the foundation for the remainder of the thesis, which normatively assesses the climate change problem from a global justice perspective. In order to conduct this normative assessment, the use of global justice theory must first be defended and compared to alternative approaches that will be rejected as the analytical framework for this thesis. In this way, the thesis clearly illustrates why a cosmopolitan approach is appropriate for the normative assessment of the climate change problem.

The chapter maps the different normative approaches taken in relation to climate change. The term normative encompasses ideas which lie in the realm of what *should* or *ought* to be, as opposed to what *is*. These ideas are usually based, in political theory, on an understanding of what is ‘right’ or ‘wrong.’ Exploring normative approaches to climate change therefore implies examining the presumptions and ideas which guide the process of determining what is ‘right’ and ‘wrong,’ and how these values relate to what we *ought* to do, in this case about climate change. In other words, mapping the normative approaches involves unraveling the ontological and epistemological assumptions that different approaches rely on to make judgments about what ought to be done about climate change. Mapping the normative terrain is important, because this has so far not been attempted. Although Stephen Gardiner has written two overviews of the climate change ethics literature, his work involves mapping differing recommendations for action on climate change, without properly considering the underlying normative assumptions these

recommendations rely on.¹ Although Gardiner's reviews are important, it is arguably necessary to map the normative assumptions underlying climate ethics approaches in order to expose underlying ethical tensions that underwrite current normative thinking on climate change. In other words, this chapter will contribute to creating a more focused understanding of the ethical approaches to climate change. According to Gardiner, this focused understanding is necessary because philosophical clarity on the climate change problem is urgently needed.²

The chapter will be organized as follows. Each approach, namely statist, pragmatic, utilitarian, and cosmopolitan, will be outlined and assessed in relation to how well each approach addresses the empirical background conditions of climate change. The previous chapter argued that climate change threatens several human interests, has two groups of primary victims, namely future generations and less developed countries, and requires collective action to be addressed. A normative assessment of climate change should therefore ideally address which human interests are threatened,³ what should be done to protect future generations and less developed countries, and finally discuss the need for collective action, because these four issues are part and parcel of the empirical conditions of climate change. The assessment of the four approaches serves to illustrate that the cosmopolitan global justice approach is most useful for the normative assessment of the climate change problem. Cosmopolitanism involves thorough normative reasoning, takes morally equal human beings as a starting point, and is critical of the status quo, all of which make it especially suited for the normative assessment of the climate change problem. In addition, it will be argued that climate change is a problem of global justice by its very nature. The chapter will conclude with an overview of what has been argued in Part I of the thesis.

The Statist Approach

Scholars who take a statist approach maintain that the state has primary normative significance and that *raison of state* defines the parameters of our moral concern.⁴ Put simply, statist theorists believe that relationships within the state are more important than

¹ See Gardiner, S. M., 'Ethics and Global Climate Change' in *Ethics*, 114 (2004), pp. 555 – 600 and 'Ethics and Climate Change: An Introduction' in *Ethics and Climate Change* (2010), pp. 54 – 66

² Gardiner, S. M., 'Ethics and Global Climate Change' in *Ethics*, 114 (2004), p. 595

³ By human interests, the thesis refers to diversity of individual interests threatened by climate change. For example, the interest threatened by floods is not the same interest as that threatened by disease, or drought, or displacement. The multifaceted nature of threatened interests should be considered. This will be further discussed in Chapter Four, which defines human interests and explores the human interests threatened by climate change.

⁴ Caney, S., 'Global Distributive Justice and the State' in *Political Studies*, 56 (2008), p. 488

relationships with 'strangers' abroad, and that this has consequences for what is owed to whom. In terms of duties of justice, this implies that although there may exist some weaker duties to those abroad, the main duties of justice are to fellow nationals. The statist approach is in direct opposition to the global justice approach. Statists, as will be illustrated below, are critical of the basic premise of the global justice position, namely that duties of justice exist independently of national borders. For this reason, it is important to assess the statist approach and defend the reasons against using this approach for the normative assessment of the climate change problem. It is important to illustrate that the main critics of global justice theory cannot provide a position which is useful for the normative assessment of the climate change problem. This is not to say that the statist position is never applicable or useful, but instead that the statist position cannot meaningfully address the climate change problem, which weakens the statist's criticism of the global justice position, in the case of climate change. In order to make this argument, the chapter now turns to the overview and assessment of the statist approach.

There are many examples of the statist approach, but as it is not specifically within the scope of this chapter to provide a comprehensive overview of statist literature, the chapter will examine two of the most influential statist scholars, David Miller and Thomas Nagel, in order to illustrate that the statist approach is problematic for the normative assessment of the climate change problem. Miller and Nagel both advocate a statist approach, to different degrees. Miller supports a 'moderate version,' because he claims that there are some principles of distributive justice which apply outside of the state.⁵ Nagel, on the other hand, is a proponent of the 'extreme version,' of the statist position, which claims that all principles of distributive justice apply within states and that none apply at the global level, because there is a lack of institutions to enforce justice outside of the state.⁶ The section below will assess both Miller and Nagel's positions in turn, and illustrate why the statist approach, whether moderate or extreme, is not suitable for the normative assessment of the climate change problem.

David Miller is known as one of the most outspoken critics of the cosmopolitan position.⁷ Miller is not convinced by moral cosmopolitanism, which demands a global conception of justice with no reference to special obligations between co-nationals. According to Miller, national and communal sentiments are important and necessary conditions in establishing

⁵ Caney, S., 'Global Distributive Justice and the State' in *Political Studies*, 56 (2008), p. 488

⁶ *Ibid.*

⁷ Brown, G.W. and Held, D., *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 373

the motivations for, and the reciprocal conditions of, social justice.⁸ This argument is based on, firstly, the idea that national identity creates ethical communities, and secondly that distributive justice can only function within these ethical communities. According to Miller, national identity is real and an essential part of self-identification.⁹ The fact that national identity exists implies that humans will naturally feel more attached to fellow nationals.¹⁰ This attachment implies that humans within a state form an ethical community, where duties owed to fellow nationals are different from, and more extensive than, the duties owed to human being as such.¹¹ Furthermore, Miller insists that duties of justice can only exist within these national ethical communities.¹² This is because defining justice in any global sense seems infeasible to Miller, since each state has unique and separate views on justice.¹³ He believes that although justice regarding basic goods, such as food, shelter, and clothing will be simple to define, complex issues such as employment, money, or medical care will be more difficult, as nations will have diverging opinions on these matters.¹⁴ In addition, Miller argues that the question of who should be allocated which resources will be equally as contested, because different societies have different conceptions of what is needed to be 'happy', 'rich', and lead a 'minimally decent life.'¹⁵ According to Miller, the 'right' answer to 'what is social justice' must draw upon shared meanings and shared understanding, and this is possible only within the ethical community of a nation state.¹⁶ For this reason, universal principles of justice, advocated by global justice theorists, are not 'practical or feasible.'¹⁷ Instead, Miller believes that some minimal, negative duties of justice should be respected outside of the state, but positive duties can only be defined and negotiated within states.¹⁸ Therefore, as an alternative to cosmopolitan global justice, Miller creates a 'split level' approach, where special duties to co-nationals generally take precedence over international obligations, but where some 'weak cosmopolitan' responsibilities to others can exist.¹⁹

Miller's denial of the possibility of defining universal principles and positive duties of justice at the global level feeds into his work on climate change, where he seems to skirt over

⁸ Brown, G.W. and Held, D., *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 373

⁹ Miller, D., *On Nationality* (Oxford: Oxford University Press, 1995), p. 10

¹⁰ *Ibid.*, p. 53

¹¹ *Ibid.*, p. 11

¹² *Ibid.*, p. 93

¹³ Miller, D., *Citizenship and National Identity* (Oxford: Blackwell Publishers Ltd., 2002), p. 168

¹⁴ *Ibid.*, p. 169

¹⁵ *Ibid.*

¹⁶ *Ibid.*, p. 172

¹⁷ Miller, D., *On Nationality* (Oxford: Oxford University Press, 1995), p. 57

¹⁸ *Ibid.*, p. 74

¹⁹ Brown, G.W. and Held, D., *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 374

questions of how collective global action on climate change will be organized and how targets will be agreed upon. As was discussed in Chapter One, climate change will necessarily require collective action, and Miller's account of climate change seems to purposely avoid the subject of how this collective action will be negotiated. Miller's first mention of the environment is in 1999, in a book chapter in *Fairness and Futurity*, an edited volume on sustainable development. In this piece, Miller explicitly 'leaves aside the complex issues that arise when cross-national collaboration is needed in order to resolve environmental problems.'²⁰ In other words, Miller explicitly avoids the subject of global cooperation and how this could be achieved.

Miller directly addresses climate change in his 2008 Tanner Lecture on the subject. In this lecture, Miller goes into some detail about how to fairly distribute emissions globally. He criticizes previous approaches such as the historical approach or emissions rights approach, and creates his own, which he calls the equal sacrifice approach.²¹ Here, Miller is directly engaging in distributive questions on climate change. However, in his discussion about the distribution of benefits and burdens, Miller specifies that rather than imposing policy solutions from 'above' (presumably the global level), it is better for each nation to agree upon its targets, and then to allow policies for meeting those targets to be decided internally, ideally through a process of democratic debate.²² With this assertion, Miller again seems to be skirting over the idea of global cooperation, instead preferring that nations decide on their own targets for emissions. He seems to be sidestepping the idea that national targets would have to be based on a global target; otherwise it would be difficult to define national action. Each nation state cannot independently decide how much to lower emissions without knowing how much emissions must be lowered in total, at the global level. Miller does not address how such a global target could be negotiated or what principles would need to underwrite this negotiation.

In the same lecture, Miller does not explain why it is necessary to act on climate change. Instead, Miller explains that 'the underlying assumption [that we need to act] has been spelled out and defended more fully by others, and I am not going to say any more about it here, because the task I have set myself is narrower.'²³ Here Miller footnotes Simon Caney, a global justice theorist whose work will be explored later in the chapter. The fact that

²⁰ Miller, D., 'Social Justice and Environmental Goods' in Andrew Dobson (eds.) *Fairness and Futurity* (Oxford: Oxford University Press, 1999), p. 152

²¹ Miller, D., 'Global Justice and Climate Change: How Should Responsibilities be Distributed?' in *The Tanner Lectures on Human Values*, delivered at Tsinghua University, Beijing (2008), p. 148

²² *Ibid.*, p. 122

²³ *Ibid.*, p. 120

Miller footnotes Caney as a basis for his approach is interesting, because Caney fundamentally disagrees with Miller on the nature of global justice and what is owed to those outside of national borders. It seems as if Miller may be aware that his own approach is inadequate as a normative basis for action against climate change. Reasons for why Miller's statist approach is inadequate will be further explored below, but at this time, it is important to note that Miller may be avoiding explicating a definite normative stance on why action on climate change is necessary because he is aware of the weaknesses of his approach in the case of climate change. Finally, in his latest book, *Justice for Earthlings*, Miller briefly states that fairness requires that when states establish rules to deal with climate change, the costs and benefits of cooperation should be shared equally, per head of population.²⁴ However, Miller does not go into any detail about how states will be able to establish these rules, again skirting over details of collective action required for climate change. From this overview of Miller's work on climate change, it seems that the statist position may not be able to adequately explain how and why collective action could be organized at the global level. This will be further discussed below, after a brief overview of Thomas Nagel's statist position.

Thomas Nagel believes that there may be some duties beyond borders, but due to current global structures, these are not duties of justice.²⁵ To argue this point, Nagel claims that justice must be confined to the state, because states have special properties that render them the only appropriate institution to administer distributive justice. This argument rests on two assumptions. The first is that justice requires 'a form of organization that claims the political legitimacy and right to impose decisions by force.'²⁶ Nagel explains that justice depends on the coordinated conduct of large numbers of people, which cannot be achieved without law, centralized authority to determine the rules, and a monopoly of force.²⁷ Nagel's second assumption is that justice depends on rights that can only arise when people are joined together in a political society.²⁸ Nagel explains that defining rights is only possible within states, where the institutions which allow for citizens to be involved in the process of defining what is fair and unfair exist.²⁹ Furthermore, it is only within states that citizens have the right to ask why they should accept inequalities.³⁰ Because of this

²⁴ Miller, D., *Justice for Earthlings* (Cambridge: Cambridge University Press, 2013), p. 12

²⁵ Brown, G.W. and Held, D., *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 374

²⁶ Nagel, T., 'The Problem of Global Justice' in *The Cosmopolitanism Reader*, eds. Brown, G.W. and Held, D. (Cambridge: Polity Press, 2010), p. 394

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ *Ibid.*, p. 402

³⁰ *Ibid.*, p. 401

right, the state has obligations to its citizens, which Nagel claims are positive obligations of justice.³¹ Nagel puts forward that these institutional conditions do not seem to exist on a global level, as there is no global equivalent of a state.³² For this reason, Nagel concludes that duties of justice cannot be negotiated and decided upon outside of the state, and therefore universal duties of justice cannot exist.³³

Overall, Nagel's approach is similar to Miller's, although he goes one step further by insisting that there are no duties of justice outside of the state. For this reason, Nagel's approach seems inappropriate for addressing important questions of how to collectively address global climate change and take human interests into account, as he clearly specifies that we do not owe people outside of our nation states more than the 'moral minimum.' Importantly, unlike Miller, Nagel makes no attempt to address climate change, which calls into question the usefulness of the 'extreme' statist position for the normative assessment of the climate change problem. In addition, although Miller touches upon climate change, he seems to skirt over questions of international cooperation, and does not make a normative case for acting on climate change, instead citing a global justice scholar who has made this argument. This seems to imply that the statist position, whether moderate or extreme, is not suitable for the normative assessment of the climate change problem.

The case against the statist approach is strengthened when considering that statist have a favorable view of the status quo, which arguably renders the position unable to address global problems such as climate change. The statist approach is not open to fundamental structural change, because statist take it as a given that states exist as static entities, and in fact defend the existence of states because of their normative significance.³⁴ Because of this apparent contentment with the status quo, the statist approach has been accused of being unable to cope with problems that are both 'inherently global in their nature and which also raise questions about the distribution of burdens and benefits beyond borders.'³⁵

Climate change is one such a global problem, as impacts of global climate change will be felt across the globe and addressing it will necessarily require globally collective action, as

³¹ Nagel, T., 'The Problem of Global Justice' in *The Cosmopolitanism Reader*, eds. Brown, G.W. and Held, D. (Cambridge: Polity Press, 2010), p. 401

³² *Ibid.*, p. 393

³³ *Ibid.*, p. 403

³⁴ Caney, S., 'Global Distributive Justice and the State' in *Political Studies*, 56 (2008), p. 506

³⁵ *Ibid.*, p. 508

was explained in Chapter One. Furthermore, climate change raises questions of what ought to be done on a global level, including questions of *who* should get *how much*. For example, it raises questions about why it is important to protect present and future people from climate change, or how emissions reductions should be allocated globally. These are questions statist theories cannot seem to cope with.³⁶ Simon Caney has gone so far as to say that the statist approach ‘lacks the conceptual resources to recognize the existence of supra-state distributive questions,’ and for this reason cannot engage with global issues such as climate change.³⁷ Caney explains that even the moderate version, defended by Miller, fails to comprehend the need for global principles of distributive justice, and therefore cannot engage with distributive questions concerning climate change.³⁸ This may be why Miller has not comprehensively addressed the global distributive questions raised by the climate change problem, instead claiming that states should, independently of one another, decide how to lower emissions. This not only sidesteps the fact that climate change will require a global agreement on action, as explained in Chapter One, but also overlooks the fact that there are international institutions working to address the distributive questions arising from the climate change problem, including the United Nations Framework for the Convention on Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC).

The above seems to illustrate that the statist approach is not able to cope with the empirical conditions of the climate change problem. The statist position cannot or will not address how global collective action on climate change will be negotiated, because the position denies the possibility of universal principles of justice, and statisticians are unable to discuss the global distribution questions raised by problems such as climate change. All of the above indicates that the approach is not appropriate for the normative assessment of the climate change problem. The approach does not seem to be able to cope with the ethical questions and concerns raised by the empirical conditions of climate change: the approach cannot address what we owe to future generations and less developed countries beyond a bare minimum, and furthermore cannot fully address human interests and the reasons for needing to take collective action. It is as if the statist theorists deny that climate change needs to be addressed at the normative level at all. This indicates that the approach is not comprehensively appropriate for a normative assessment of the climate change problem.

³⁶ *Ibid* Caney, S., ‘Global Distributive Justice and the State’ in *Political Studies*, 56 (2008), p. 509

³⁷ *Ibid*.

³⁸ *Ibid*.

In order to solidify this argument, the chapter turns to the question of what would happen if the statist approach were to attempt to address the empirical realities of the climate change problem. Chapter One outlined the idea that if climate change is to be addressed, it will have to be on global level, as it is a global issue, where unilateral action will have little to no effect. If there is to be global action, then there will inevitably have to be some discussion about cooperation, and defining the rules of cooperation will involve discussion about who owes what to whom, which by their nature are questions of distributive justice. Statists would have to address questions about how much is owed to less developed countries and future generations, and may have to concede or admit that there are positive obligations of justice beyond borders in the special circumstance of climate change. This would call into question the fundamental underlying premise that national boundaries are exclusively morally significant, because in the case of climate change, national borders may not be morally significant, since emissions cannot be kept within national borders. Defending the moral significance of borders in some cases, and not others, would be quite problematic for statist theorists, because the basic tenet of the statist position would no longer hold - a point Miller has been critiqued on previously, as will be briefly explained below.

Critics of Miller argue that Miller does not offer compelling enough reasons to make national boundaries morally relevant, full stop.³⁹ This becomes especially obvious in his description of duties of justice, in what Miller describes as a 'split level model,' where special duties to co-nationals generally take precedence over international obligations, but where some 'weak cosmopolitan' responsibilities to 'strangers' can exist.⁴⁰ In this regard, Miller believes that his alternative split level model makes room for both global responsibilities and for special responsibilities to compatriots.⁴¹ Megan Kime argues that this split level approach exposes an important contradiction in Miller's account. Kime explains that in this model, Miller defines duties of justice which are conditional on national relationships, for example providing basic needs, and yet, when defining duties of justice abroad, Miller relies on a universal conception of human rights, as he argues we should uphold these internationally.⁴² There is a stark contradiction in Miller's argument against contextual strategies when defining universal human rights, and his defense of

³⁹ Caney, S., 'Global Distributive Justice and the State' in *Political Studies*, 56 (2008), p. 488

⁴⁰ Miller, D., 'Reasonable Partiality Towards Compatriots' in *Ethical Theory and Moral Practice*, 8 (2005), p. 75

⁴¹ Brown, G.W. and Held, D., *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 389

⁴² Kime, M., 'Justifying Rights: Relational and Non-Relational Approaches to Justice' presented at the *Centre for Political Theory and Global Justice*, University of Sheffield, November 2010, p. 2

contextualism when defining national duties of justice.⁴³ Kime believes that this renders Miller's account inconsistent, because he seems to have two contradicting versions of justice, one which is international and based on human rights, and one which is national and based on special relationships. Kime explains that if Miller is convinced that there are some global duties of justice, this implies that national boundaries are not morally relevant in the way that he describes. As Kime suggests, it almost seems as if Miller recognizes a weakness in his approach and tries to strengthen it by adding a universal aspect, so that his theory can be more robustly universal.⁴⁴ However, Miller does not strengthen his case, but instead weakens his argument about the morally relevant nature of national boundaries, as boundaries only seem to be morally relevant in some, not all, cases. This implies an inherent weakness in Miller's main premise for his argument. This criticism points to a serious flaw in Miller's logic, which may be why Miller avoids questions of climate change, which highlights the idea that national borders may not be exclusively morally relevant, because emissions cannot be confined within state borders.

It seems that statist will either have to continue to ignore the fact that empirical conditions of climate change call into question the moral relevance of borders or, alternatively, attempt to address climate change, which will arguably render their underlying assumptions untenable. Overall, the statist position does not seem to be able to address which human interests are at stake in climate change, what should be done to protect future generations and less developed countries, and how to coordinate the collective action necessary to combat climate change. Therefore, the thesis at this point rejects the statist position as a basis for normative assessment of the climate change problem. It seems what is needed is an approach which better addresses, and directly engages with, the issues and concerns raised by the empirical conditions of climate change. The chapter now moves onto the pragmatic approach, to assess whether it is more useful than the statist approach in providing a viable basis for the normative assessment of the climate change problem.

The Pragmatic Approach

To be pragmatic is defined as 'dealing with things sensibly and realistically in a way that is based on practical rather than theoretical considerations.'⁴⁵ Using the term 'pragmatic' is therefore appropriate in this chapter, because the scholars who fall under this approach

⁴³ Kime, M., 'Justifying Rights: Relational and Non-Relational Approaches to Justice' presented at the *Centre for Political Theory and Global Justice*, University of Sheffield, November 2010, p. 14

⁴⁴ *Ibid.*, p. 3

⁴⁵ According to the Oxford Dictionary (<http://Oxforddictionaries.com/definition/pragmatic>)

believe that climate change should be approached practically and logically, without overriding concern for ethical considerations. This is in direct opposition to the global justice approach, which argues that the ethical issues raised by climate change are important and must be considered in action on climate change. For this reason, it is worthwhile to assess the pragmatic position, because it can be said to be a critical response to the global justice approach. If it can be illustrated that the pragmatist approach cannot capture the empirical realities of the climate change problem, and provide a viable alternative to the global justice position, this will weaken pragmatist critiques of global justice theory in the case of climate change. Paul Collier, one of the most outspoken pragmatists working on climate change, will be used as an example of this approach. For the scope of this chapter, Collier's approach serves as an illustration of the main tenets of the pragmatic approach and the normative assumptions that underwrite the position.

Collier explains that action on climate change is urgently necessary, especially because carbon accumulates over time, meaning the sooner action is taken, the better.⁴⁶ In addition, Collier shows concern for less developed countries, in particular the bottom billion, which he explains will be hit hardest by climate change. As Collier puts it, 'already too hot, most models predict that their climates will deteriorate more rapidly and more substantially than those in other regions.'⁴⁷ He explains that Africa will be particularly hard hit, as its countries are doubly exposed: not only do they face the greatest climate degradation; their agriculture dominated economies are far more sensitive to climate change than the industrial service economies of the richer countries.⁴⁸ Collier's concern for less developed countries and the insistence on action sooner rather than later is more promising than the statist approach, which seems to deny the possibility for a collective response to climate change, and fails to provide a normative reason to act on climate change.

Importantly, Collier does not believe that any approach taken to combat climate change should be based on normative or ethical considerations. In fact, he believes that moralizing has confused the subject of reducing carbon emissions.⁴⁹ According to Collier, the modern discourse on climate change is too concerned with attribution of blame and guilt, or 'ethical baggage' which he finds profoundly unhelpful.⁵⁰ Collier asserts that the ethical baggage encumbering climate change is not intrinsic to the structure of the problem, but

⁴⁶ Collier, P., *The Plundered Planet: How to Reconcile Prosperity with Nature* (London: Allen Lane, 2010), p. 174

⁴⁷ *Ibid.*, p. xiii

⁴⁸ *Ibid.*, p. xiv

⁴⁹ *Ibid.*, p. 178

⁵⁰ *Ibid.*, p. 196

imported from other agendas, like post-colonial guilt or poverty reduction.⁵¹ Collier's solution to this is simple: there should be no ethical considerations – 'nobody need feel guilty about past emissions, and nobody should feel victimized.'⁵² Instead of focusing on who is to blame, or who owes what to whom, Collier argues that the focus should be on how to reduce carbon, now that it has been discovered to be a problem.⁵³ In this way, his approach is almost the very definition of pragmatic, as he focuses solely on the problems at hand, and not normative considerations about who is responsible or what a 'just' distribution of benefits and burdens would require.

To Collier, ignoring ethical considerations means being as efficient as possible. As he puts it, 'climate change is bad news. Dealing with it is going to be expensive, and not dealing with it is going to be more expensive. We should therefore deal with it in the most efficient way possible.'⁵⁴ His idea of an efficient response is to impose one common carbon tax globally.⁵⁵ In his work, he uses the example of \$40 per ton of carbon, but suggests that it does not matter what the agreed amount is, as long as it is not too low for producers not to notice.⁵⁶ He believes this carbon tax will have a profound effect on heavy industry, energy producers, and other major carbon emitters, because unless these actors change their technologies, their costs would rise sharply, as would their prices, which would drive consumers away from their products.⁵⁷ Therefore, these producers of carbon would automatically invest in cleaner technology, which could be new technologies like solar and wind, or existing technology, like nuclear power.⁵⁸ Again, it is important to note that this is supposedly a pragmatic, practical approach, as it is not based on ethical considerations. And for Collier, this is good, because he thinks decisions over the management of carbon are too important to be guided by what he calls 'romanticism.'⁵⁹

However, Collier asserts that alongside this carbon tax, reducing carbon emissions will need inter-governmental cooperation, because carbon is a problem that can only be addressed by common international responses.⁶⁰ Although it is positive that Collier mentions the need for global cooperation on climate change, because this is in line with the empirical realities

⁵¹ Collier, P., *The Plundered Planet: How to Reconcile Prosperity with Nature* (London: Allen Lane, 2010), p. 196

⁵² *Ibid.*, p. 197

⁵³ *Ibid.*, p. 178

⁵⁴ *Ibid.*, p. 179

⁵⁵ *Ibid.*, p. 183

⁵⁶ *Ibid.*, p. 180

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*, p. 181

⁵⁹ *Ibid.*, p. 182

⁶⁰ *Ibid.*, p. 238

of the climate change problem, Collier's suggestion for global cooperation brings to light some problems inherent in his supposed non-ethical approach. Global cooperation on the climate change problem will necessarily involve common conceptions of what is 'good,' who owes what to whom, who will benefit, and who will bear costs, which are considerations of justice and must be guided by normative principles. Otherwise, it would not be possible to agree on any action, as there would be no underlying agreements and principles to guide collective action. By denying normative reasoning, and yet advocating global cooperation, Collier seems to be oversimplifying the climate change problem. This oversimplification becomes increasingly evident when considering Collier's approach further.

The empirical conditions of climate change outlined in Chapter One raise profound ethical questions, and especially ones of procedural and distributive justice.⁶¹ For example, discussing future generations as a group who will benefit or suffer from current actions involves complicated epistemological considerations that demand theorization and hypothetical thought experiments. Considering how much future generations deserve, in particular, will require normative reasoning. It will be difficult to be pragmatic about this, as there is limited empirical precedent to base ideas on. In addition, less developed countries raise complex issues of distributive justice. For example, how much these countries are owed in terms of protection from the consequences of climate change, and whether these countries should have any responsibility to lower emissions. These kinds of distributive discussions must be had in order for collective action to be possible. A pragmatic approach may struggle to address these kinds of issues. It seems that the pragmatic approach Collier advocates may not be nuanced enough to address the complexities associated with the empirical conditions of climate change because these raise profound ethical questions he oversimplifies in his approach.

This is best illustrated by outlining how Collier attempts to address what is owed to future generations and less developed countries. When addressing future generations, Collier claims that current generations should 'keep emissions in check,' and 'only make decisions we think the future generations would be ok with.'⁶² However, determining what 'we think future generations will be ok with' will no doubt require a hypothetical experiment which requires notions of fairness and legitimate acceptance, questions which relate to who deserves what, which Collier is seemingly ignoring and oversimplifying. Similarly, when

⁶¹ Gardiner, S. M., 'Ethics and Climate Change: An Introduction' in *Ethics and Climate Change 1* (2010), p. 58

⁶² Collier, P., *The Plundered Planet: How to Reconcile Prosperity with Nature* (London: Allen Lane, 2010), p. 201

discussing the less developed countries, Collier says 'the lucky parts of the world should behave generously towards those that have been unlucky.'⁶³ Making this kind of statement relies on a deeper moral assumption about who deserves what and why, and what is fair in terms of distribution – questions which Collier does not address. These statements seem to imply Collier is engaging in normative reasoning, as he is making normative assumptions about just distribution. He is prescribing what *ought* or *should* be instead of what *is*, which as explained above, are normative considerations. Unfortunately, his normative reasoning is quite problematic. Although Collier's broad statements are certainly positive, and speak directly to issues of justice, without any serious normative theorizing behind them, they remain weak. Collier insists on not using normative values and seemingly rejects these. As a consequence, when he speaks about his own normative considerations, they are not based in any critical reflection, but rather seem to be based in his own feelings. This renders his account both inconsistent and morally deceptive. It is inconsistent because he is making normative statements when he has strongly argued against ethical theorizing. Furthermore, his account is morally deceptive because Collier claims to be value neutral, but clearly subscribes to moral assumptions he is not spelling out explicitly.

It seems that Collier, by taking a pragmatic approach, cannot adequately address complex issues associated with climate change – specifically questions about how much is owed to future generations and less developed countries, and how collective action should be coordinated. The pragmatic approach simply does not engage deeply enough with the normative and ethical issues at hand. Furthermore, Collier claims that moral considerations can be taken out of the equation, but at the same time he supports certain moral positions without explanation. This indicates that avoiding moral questions completely is not possible in the case of climate change. It is important to engage with these questions rather than to skirt over them and oversimplify them, as Collier does. For this reason, the thesis rejects the pragmatic position as a basis for the normative assessment of the climate change problem at this point.

That said, the pragmatic approach should not be dismissed in its entirety, even if it cannot be used as a comprehensive model for the normative assessment of the climate change problem. It can, for example, help to inform normative thinking in terms of providing some empirical background conditions that must be 'fed' into formulating any just distribution. However, the pragmatic approach cannot provide clear moral reasoning required to

⁶³ Collier, P., *The Plundered Planet: How to Reconcile Prosperity with Nature* (London: Allen Lane, 2010), p. 197

address the complex moral issues that arise as a result of the empirical realities of the climate change problem. The chapter now turns to the utilitarian approach, to critically assess whether it is more useful than the statist or pragmatic approaches in providing a viable basis for the normative assessment of the climate change problem.

The Utilitarian Approach

To take a utilitarian approach implies defining a value that must be maximized, a harm that must be minimized, or defining a rule that must be followed. When deciding a course of action in a given situation, the chosen value or rule will always trump all other considerations for utilitarians. Whichever value is chosen, it is normative, as it is based on what ought to be done, and grounded in assumptions of what is good. The utilitarian approach is arguably opposed to the cosmopolitan justice approach, because these two positions are grounded in different assumptions of what should be normatively prioritized. Utilitarianism is a complex field with a rich history. As a result, it is difficult to pinpoint exact utilitarian objections to cosmopolitanism. Some utilitarians may directly oppose cosmopolitanism by denying the moral worth of individual human beings, instead concentrating on what is best for the greatest number of individuals. Other utilitarians may be opposed only to non-collective or individualistic forms of global justice, rather than being opposed to global justice as an approach. In fact, there exist cosmopolitan utilitarians, as will be discussed below. Nevertheless, it is worthwhile to examine whether the utilitarian position can offer an alternative to the cosmopolitan position for the normative assessment of the climate change problem. If it can be illustrated that the utilitarian approach fails to capture the empirical realities of the climate change problem, then the utilitarian critique of cosmopolitanism will be weakened in the case of climate change.

Utilitarianism is a broad church, containing many different approaches, such as act utilitarianism, rule utilitarianism, preference utilitarianism, and rights based utilitarianism, among others. It is not explicitly within the scope of this chapter to review all existing utilitarian accounts. Instead, the chapter will focus on the most pervasive existing utilitarian climate ethics account: a cost-benefit calculative account put forward by Bjorn Lomborg.⁶⁴ According to an extensive review of the literature, this cost benefit analysis currently presents the most comprehensive utilitarian account of climate change ethics. As will be discussed below, utilitarians have a rich history in other ethical fields, including animal

⁶⁴ Nicholas Stern offers a similar cost benefit analysis, see: Stern, N., 'The Economics of Climate Change' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010). However, it is Lomborg's account which has been discussed in climate ethics literature most frequently, and is therefore presented here in detail.

rights, war and peace, and poverty. However, it seems that in the case of climate ethics, utilitarians have so far not offered a comprehensive account that goes beyond the cost-benefit model outlined here. This will be further discussed after an assessment of Lomborg's account. To reiterate, this chapter does not purport to provide a comprehensive overview of all possible utilitarian positions. Instead, the chapter aims to highlight potential problems with an existing utilitarian climate ethics account, and make the case these issues currently render the utilitarian account less suitable for the normative assessment of the climate change problem than the cosmopolitan account. In order to achieve this, Lomborg's account will be outlined and assessed below.

Bjorn Lomborg concerns himself with exploring what should be done about climate change at the global level.⁶⁵ Applying a utilitarian approach, Lomborg chooses a normative value, cost, which he believes should be minimized. His main argument is that an economic analysis of the costs and benefits of climate change action clearly illustrates that the world, as a whole, would benefit more from investing in tackling problems in the developing world and in research and development of renewable energy, rather than following current policies on climate change.⁶⁶ Here Lomborg reveals his utilitarian assumption that minimizing cost will bring about a better world. To make his case, Lomborg analyzes the Kyoto Protocol, which is at the time of writing the only existing international climate change agreement. Lomborg explains that following the Kyoto Protocol in its current form would cost a significant amount of money for two reasons. Firstly, cutting emissions is an extremely expensive project if the technology to do so effectively is not in place.⁶⁷ Cutting emissions with existing technology is not cost effective, because cheap green technology is not widely available. Secondly, high emitting less developed countries are currently not subject to emissions reductions targets under the Kyoto Protocol, and are predicted to emit more as they develop.⁶⁸ Therefore, Lomborg asserts that the only way to improve the Kyoto protocol would be to introduce global emissions trading, in order to ensure that all states do their part. However, Lomborg believes that it would be too difficult to define emission rights, divide emission rights up, and to ensure compliance.⁶⁹ Lomborg therefore concludes that Kyoto Protocol is a waste of global resources.⁷⁰

⁶⁵ Lomborg, B., *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge: Cambridge University Press, 2001), p. 259

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*, p. 305

⁶⁸ *Ibid.*, p. 304

⁶⁹ *Ibid.*, p. 305

⁷⁰ *Ibid.*, p. 310

In light of his findings, Lomborg argues that we should be combatting climate change in the most cost efficient manner, which necessary implies rethinking global action on climate change.⁷¹ Lomborg uses his utilitarian cost-benefit calculus to make the case for a strategy which focuses on ensuring we can adapt to climate change, rather than attempting to lower emissions.⁷² Investing in adaptation measures now, according to Lomborg, would give less developed countries a better future because they would be better equipped to deal with the consequences of climate change.⁷³ Furthermore, Lomborg also advocates easing the emission of greenhouse gases (GHGs) over the long run, by investing in better technology research and development.⁷⁴ He argues that this would be less costly than attempting to lower emissions with existing, inefficient technology. Lomborg concludes that there is no point in spending billions on 'a pretty insignificant insurance policy, when we and our descendants could benefit far more from the same investment placed elsewhere.'⁷⁵

Lomborg presents an interesting point. It may be worthwhile considering what action must be taken outside of directly mitigating climate change, especially because this action may be more helpful in the long run, not only in terms of climate change, but for poverty reduction and better conditions for the future. Lomborg also makes an interesting case about the need for investment in new technologies. Furthermore, his account has merit because it illustrates an understanding of the need for collective action. Lomborg thoroughly explores what collective action should be taken at the global level. Finally, Lomborg's work is useful because he goes a step further than Collier by beginning to grapple with some of the issues raised by climate change, by thinking more deeply about investing in future generations and helping less developed countries. However, his argument suffers from several flaws.

First, cost-benefit analyses like Lomborg's seem to skirt over significant epistemic uncertainties. Society is bound to change over time, which renders any real prediction of future scenarios near impossible.⁷⁶ In particular, over the time scale relevant for climate change, society is bound to be radically transformed in ways that are utterly unpredictable

⁷¹ Lomborg, B., *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge: Cambridge University Press, 2001), p. 322

⁷² *Ibid.*

⁷³ *Ibid.*

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*, p. 324

⁷⁶ Gardiner, S. M., 'Ethics and Global Climate Change' in *Ethics*, 114 (2004), p. 571

to use now.⁷⁷ For this reason, Stephen Gardiner argues that fine-grained cost-benefit analyses are simply not possible for climate change.⁷⁸ Second, it seems that cost-benefit analysis cannot adequately capture all of the relevant cost and benefits involved in climate change.⁷⁹ More specifically, Lomborg's analysis arguably cannot adequately take into account costs with special features, such as irreversible damages, which as explained in Chapter One, are very much associated with climate change.⁸⁰ For this reason, there is cause to be skeptical about Lomborg's cost argument in particular, and about the reliability of economic analyses of climate change more generally.⁸¹ Dale Jamieson argues that it is difficult enough to assess the economic benefits and costs of small-scale local activities, and it is therefore almost unimaginable that the diverse impacts of global climate change could be aggregated in enough detail to dictate policy responses.⁸² This indicates that the climate change problem may be too complex to be fully captured by simple utilitarian calculations of cost. It seems that cost-benefit analysis fails to take into account any factors outside of the narrowly defined values that are used to make calculations and predictions. Although cost is undoubtedly an important concern related to the climate change problem, cost is only one value, and may not be the most important one.⁸³ Using cost as the single most important value arguably oversimplifies the climate change problem, because the problems posed by climate change are ethical as well as economic and scientific.⁸⁴ It seems that a cost-benefit utilitarian approach, like the pragmatic approach above, may not be able to capture the complex issues implied by the empirical background conditions of climate change. This becomes clearer when considering specific examples from Lomborg's analysis.

For one, Lomborg seems to present a false dichotomy between helping the poor and lowering GHG emissions. This is a false dichotomy because lowering emissions and poverty relief are intrinsically linked, and should therefore not be presented as an 'either/or' choice. Digging new wells in Africa to reduce poverty would not make much difference if climate change induces severe drought in fifty years.⁸⁵ In addition, the use of clean energy could be

⁷⁷ Gardiner, S. M., 'Ethics and Climate Change: An Introduction' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 11

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*

⁸⁰ Gardiner, S. M., 'Ethics and Global Climate Change' in *Ethics*, 114 (2004), p. 573

⁸¹ *Ibid.*

⁸² *Ibid.*, p. 81

⁸³ *Ibid.*, p. 79

⁸⁴ *Ibid.*, p. 82

⁸⁵ Gardiner, S. M., 'Ethics and Climate Change: An Introduction' in *Ethics and Climate Change 1* (2010), p. 61

used to enable development and aid poverty reduction, according to sustainable development theorists.⁸⁶ However, since Lomborg is mainly concerned with cost benefit analysis, he cannot consider complexities such as these, and may make suggestions that are actually unhelpful both for reducing poverty as well as reducing emissions. A second example of oversimplification can be found in Lomborg's treatment of future generations. Lomborg assumes that future generations will be compensated for the failure to reduce emissions because this will save money and ensure that future generations are better off financially. By assuming this, Lomborg overlooks the possibility that future people may be entitled to both a clean environment and wealth.⁸⁷ Furthermore, when Lomborg assumes future generations will be better off, he ignores issues of responsibility, and especially intergenerational responsibility.⁸⁸ If present generations cause the climate problem, it is far from clear that the future victims should pay to fix it, or pay disproportionately. This is so even if they happen to have more resources. It is not always assumed that those who have a greater ability to pay should pay. Sometimes it is assumed that those who caused the problem should pay instead.⁸⁹ In addition, Lomborg does not acknowledge that future generations may not be richer, because they have been impoverished by the effects of climate change.⁹⁰ It could be that costs to pay for environmental changes become excessive of any wealth which is guaranteed to future generations by saving money on emissions reductions in the present. Indeed, future generations may never exist at all if the burden of climate change results in irreversible damages, as will be explained in Chapter Four.

In sum, Lomborg seems to be limited by his cost-benefit approach. Although cost-benefit analysis is arguably important because it can reveal what is at stake, the calculus can also oversimplify existing empirical conditions. In the case of climate change, the empirical conditions discussed in Chapter One pointed to a number of complexities. Lomborg creates a simplified version of the empirical conditions of climate change by framing the problem in economic terms, and concentrating solely on his normative value of cost. In doing so, Lomborg does not seem to be able to adequately engage with how much is owed to future generations and less developed countries or address which human interests are at stake and why this is important. For this reason, a cost-benefit approach does not seem

⁸⁶ For an overview of sustainable development, see Hopwood, B., Mellor, M. and O'Brien G., 'Sustainable Development: Mapping Different Approaches' in *Sustainable Development* 13(1), (2005), pp. 38 – 52

⁸⁷ Gardiner, S. M., 'Ethics and Climate Change: An Introduction' in *Ethics and Climate Change* 1 (2010), p. 61

⁸⁸ Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 357

⁸⁹ Pogge, T., *Realizing Rawls* (London: Cornell University Press, 1989), p. 277

⁹⁰ Caney, S., 'Human Rights, Climate Change, and Discounting' in *Environmental Politics*, 17 (2008), p. 551

attractive as a basis for the normative assessment of the climate change problem. This is not to say that such an approach has no use at all for the assessment of the climate change problem. The normative value of cost is one which must be considered, because climate change action will require payment in some form, and how this payment is distributed will need to be addressed. Lomborg's cost-benefit analysis, and his words of caution about the costs of lowering GHG emissions, can be part of a comprehensive normative assessment of the climate change problem, but on its own, Lomborg's approach is not sufficient to use as an all-encompassing normative approach. In other words, it seems that in its present form, the utilitarian approach does not represent a useful approach for the normative assessment of the climate change problem.

As was explained above, Lomborg's cost-benefit model is currently representative of the utilitarian approach to climate change ethics. However, there is more to utilitarianism than cost-benefit analysis. Utilitarianism has a rich history, and falls into several different approaches. The most well-known distinction between utilitarian approaches is act and rule utilitarianism. Act utilitarianism relies on the premise that each individual act must lead to the greatest utility (however utility has been defined), and that decisions on how to act should be made on a case by case basis. Rule utilitarians, on the other hand, stress the importance of moral rules which produce utility. Under this approach, individual actions are judged by how well they comply with these moral rules. Rule utilitarianism has gained popularity in recent decades, because it is considered by some as a more nuanced approach that can encompass deontological subfloors that prevent individual acts from overriding moral codes. There is heated debate about which position is superior, with some claiming that there is no difference between the accounts because rule utilitarianism collapses into act utilitarianism.⁹¹ There are also several utilitarian positions which come quite close to cosmopolitanism, with some utilitarians referring to themselves as cosmopolitan.⁹² Raffaele Marchetti, for example, claims that only a multi-layered consequentialist cosmopolitan theory can properly deal with the complexity of global phenomena.⁹³ Or, as another example, Peter Singer applies a cosmopolitan utilitarian approach to defend the rights of sentient beings throughout the world.⁹⁴ This link between cosmopolitanism and utilitarianism is perhaps unsurprising, considering that some global

⁹¹ For a useful discussion on this, see Lyons, D., *Forms and Limits of Utilitarianism* (Oxford: Oxford University Press, 1965)

⁹² For examples of this, see Marchetti, R., *Global Democracy: For and Against* (New York: Routledge, 2008), or Jones, C., *Global Justice: Defending Cosmopolitanism* (Oxford: Oxford University Press, 1999)

⁹³ Marchetti, R., 'Consequentialist Cosmopolitanism and Global Political Agency' in *Global Ethics and Civil Society*, eds. Eade, J. and O'Byrne, D. (Aldershot: Ashgate, 2004), p. 58

⁹⁴ Caney, S., *Justice Beyond Borders* (Oxford: Oxford University Press, 2005), p. 5

justice scholars, like Simon Caney, claim that one of the founding fathers of utilitarianism, Jeremy Bentham, can be considered a cosmopolitan because he defended the idea of international court to resolve conflicts.⁹⁵

The complexity of the utilitarian field and the link between cosmopolitanism and utilitarianism implies that there could possibly be a utilitarian approach which encompasses the complexities of the climate change problem and satisfies the cosmopolitan demands defined in Chapter Five of this thesis. There may be a maximizing principle which could underwrite climate justice as defined in this thesis. This would depend on which principle is maximized. However, there is currently no such utilitarian approach to climate change to refer to. The arguments made by utilitarians have thus far have been unconvincing: the uncertainties associated with the cost-benefit model outlined above currently imply that utilitarianism is unsuitable for the normative assessment of the climate change problem. This lack of literature to refer to is perhaps surprising, because utilitarianism represents a comprehensive approach in other fields such as poverty, war and peace, security, and animal rights. This may be indicative of the fact that utilitarians have not engaged with the climate change problem for a reason. Peter Singer, one of the most well-known utilitarian theorists, has reportedly admitted that his utilitarian account struggles to capture the vastness of the problem of climate change.⁹⁶ Although Singer addresses climate change in his work on the ethics of globalization, he does not take a definitive utilitarian stance on what should be done about climate change, instead providing a brief overview of how benefits and burdens could be distributed.⁹⁷ Relatedly, Dale Jamieson explains that although he believes utilitarianism is suited for addressing climate change, because of its focus on bringing about ‘the best possible world,’ ultimately utilitarianism faces problems when attempting to address climate change.⁹⁸ Jamieson argues that the utilitarian focus on outcomes may be too limiting in the case of climate change.⁹⁹ The lack of utilitarian engagement with climate change is problematic, because utilitarianism has the potential to present an interesting normative approach to climate change.¹⁰⁰ So far, such an approach has not been developed, and the thesis therefore

⁹⁵ Caney, S., *Justice Beyond Borders* (Oxford: Oxford University Press, 2005), p. 4

⁹⁶ Vernon, M., ‘Without Belief in Moral Truths, How Can We Care About Climate Change?’ in *The Guardian* <http://www.theguardian.com/commentisfree/belief/2011/may/25/peter-singer-utilitarianism-climate-change> [accessed 11.03.2015]

⁹⁷ Singer, P., *One World: The Ethics of Globalization* (New Haven: Yale University Press, 2002)

⁹⁸ Jamieson, D., ‘When Utilitarians Should Be Virtue Theorists’ in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 316

⁹⁹ *Ibid.*, p. 319

¹⁰⁰ Wolff, B. G. ‘Environmental Studies and Utilitarian Ethics’ in *Environmental Studies* 34(2), (2008), p. 6

rejects the utilitarian approach for the normative assessment of climate change at this point. This is not to say that a useful utilitarian account will not be developed in future, at which point it can be reassessed whether it represents a viable alternative to the cosmopolitan approach, to which the chapter now turns.

The Cosmopolitan Approach

Taking a cosmopolitan approach implies making the normative assumption that all humans have equal moral worth, and therefore have the right to equal moral consideration. These assumptions are based on the three main tenets of cosmopolitan theory: individualism, universality, and generality.¹⁰¹ Individualism implies that the ultimate units for concern are human beings, or persons, by virtue of their humanity. Universality indicates that this status attaches to every living human being equally and generality maintains that this special status applies globally.¹⁰² Although there are different strands of cosmopolitanism, the thesis will focus on a particular theme within cosmopolitanism, namely global justice. This will be referred to as the cosmopolitan approach, because 'cosmopolitan' is by now the preferred self-description of most political philosophers concerning themselves with global justice.¹⁰³ As was explained above, statist, pragmatic, and utilitarian approaches are all critical of the cosmopolitan position for different reasons. The assessment below will illustrate that in the case of climate change, these criticisms are not convincing, because the cosmopolitan approach is more suited to the normative assessment of the climate change problem than the approaches assessed in this chapter.

Any discussion of cosmopolitan global justice cannot exclude a brief summary of the work of John Rawls, who explicates his famous conception of justice in *A Theory of Justice* and *Laws of Peoples*. Many global justice theorists have been influenced by Rawls' work, and it is therefore worthwhile to summarize his position below. Rawls' conception of justice is based on his understanding that 'the primary subject of justice is the basic structure of society, or more exactly, the way in which the major social institutions distribute fundamental rights and duties and determine the division of advantages from social cooperation.'¹⁰⁴ His theory of justice holds that 'social and economic inequalities are to be arranged so that they are both (a) to the greatest expected benefit of the least advantaged, and (b) attached to offices and positions open to all under conditions of fair equality of

¹⁰¹ Pogge, T., 'Cosmopolitanism and Sovereignty' in *The Cosmopolitanism Reader*, eds. Brown, G.W. and Held, D. (Cambridge: Polity Press, 2010), p. 114

¹⁰² *Ibid.*

¹⁰³ Miller, D., 'Cosmopolitanism' in *The Cosmopolitanism Reader*, eds. Brown, G.W. and Held, D. (Cambridge: Polity Press, 2010), p. 377

¹⁰⁴ Rawls, J., *A Theory of Justice* (Oxford, Oxford University Press, 1971), p. 7

opportunity.¹⁰⁵ However, Rawls specifies that this conception of justice does not apply outside of the state. This is because nation-states are presumed to be largely self-contained and his version of justice is 'designed to apply to the special cooperative relations existing by virtue of the shared political, legal and economic institutions that constitute the basic structure of a democratic society.'¹⁰⁶ Therefore, Rawls' account of justice 'is not designed to apply on a global level to the more fluid and inchoate collaborative relations among world inhabitants.'¹⁰⁷ Instead, like the statist position, Rawls believes that 'the duties of justice that governments and citizens owe to their own people are more extensive than the duties of justice they owe to other peoples.'¹⁰⁸ Outside of the state, there exist minimal duties of mutual respect and humanitarianism, but not extensive duties of justice.¹⁰⁹

In contrast, global justice theorists are not convinced that justice should be limited to the state. There are numerous approaches to global justice; however, the approaches can be grouped into two broad categories. The first is referred to as relational, an approach which considers relationships with other humans as the grounds and motivation for global justice. For example, Charles Beitz argues that international economic interdependency has come to resemble the conditions of social cooperation that originally motivated Rawls' domestic concern for distributive justice, which, under Rawls' own logic, indicates that justice should be applied globally.¹¹⁰ According to Beitz, international economic interdependency creates special relationships, and these relationships are the basis for his conception of justice. Another example of a relational approach is Thomas Pogge's, who argues that individuals enter into a relationship by participating in the global economic interactions, and, as beneficiaries, have responsibilities to rectify the inequalities these interactions perpetuate globally.¹¹¹ In other words, Pogge suggests that participation in the global economy creates special relationships, and these relationships are the basis for his conception of justice. The second approach to global justice is referred to as non-relational, and asserts that special relationships with other humans are not required in order for duties of global justice to exist. Rather, as Simon Caney argues, persons should be included in the scope of distributive justice by virtue of their humanity, which implies that the scope of justice must

¹⁰⁵ Rawls, J., *A Theory of Justice* (Oxford, Oxford University Press, 1971), p. 302

¹⁰⁶ Freeman, S., *The Cambridge Companion to Rawls* (Cambridge, Cambridge University Press, 2003), p. 50

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*, p. 48

¹⁰⁹ Rawls, J., *The Law of Peoples* (Cambridge, Harvard University Press, 1999), p. 68.

¹¹⁰ Beitz, C., 'Justice and International Relations' in *Philosophy and Public Affairs*, 4 (1975), p. 388

¹¹¹ Pogge, T., *Realizing Rawls* (London: Cornell University Press, 1989), p. 277

be global.¹¹² For non-relational accounts of justice, special relationships do not have to exist for duties of distributive justice to be required.

In order to expand on these categories, two accounts of climate justice will now be assessed in terms of how well they capture the empirical realities of climate change. The first approach is a relational account of global justice and climate change advocated by Patrick Hayden, and the second is the non-relational global justice and climate change approach defended by Simon Caney. The two accounts have been chosen because Hayden and Caney are two of the most prominent cosmopolitan scholars of climate justice, and their accounts represent examples of sophisticated and well developed work on the subject. The overview of these two accounts will be necessarily brief, as Part II of the thesis will involve unpacking and further exploring the global justice approach in relation to climate change. This current chapter merely serves to illustrate why the cosmopolitan approach is more attractive for the normative assessment of the climate change problem than statist, pragmatist, or utilitarian approaches.

For Hayden, cosmopolitanism and climate change are linked, because human rights claims are contingent on the continued existence of a functioning and life-sustaining ecosystem.¹¹³ Hayden explains that climate change will result in a number of problems, such as displacement, famine, or spread of disease, which directly threaten specific human rights, such as the right to life, health and home.¹¹⁴ This threat to human rights, according to Hayden, requires the development of an account of global justice and climate change. Like Pogge, Hayden argues that 'given the massive inequalities in the present global distribution of resources recourse must be made to some redistributive claims as required by duties of justice.'¹¹⁵ Furthermore, similarly to Beitz, Hayden asserts that the shared fates and interest of persons extend beyond political boundaries as economic, environmental, social, cultural, and political life becomes increasingly global.¹¹⁶ Based on these modern relationships at the global level, Hayden believes Rawls' conception of justice should be globalized. This is what makes Hayden's account relational: the need for global distributive justice arises out of special global relationships between individuals.

¹¹² Caney, S., 'Global Distributive Justice and the State' in *Political Studies*, 56 (2008), p. 491

¹¹³ Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 351

¹¹⁴ *Ibid.*

¹¹⁵ *Ibid.*, p. 357

¹¹⁶ *Ibid.*

Hayden creates an account of climate change justice, which he dubs ‘environmental justice.’ His conception of environmental justice focuses on human beings as the proper subjects of justice and concerns their claims to rights and fairness.¹¹⁷ Hayden believes that humans should have both substantive and procedural environmental rights.¹¹⁸ Substantive rights include the right to clean air and water, the right to be protected from environmental harm, and the right to natural resources being used and managed according to environmentally sound practices.¹¹⁹ Procedural rights include the right to enhance and protect our ability to claim substantive rights, as well as the right to be fully informed about the potential effects of environmental hazards, the right to participate in democratic procedures for policy making and decision making concerning such hazards, the right to consent to policies and decisions reached, and the right to complain about existing conditions, standards, and policies.¹²⁰

In terms of global cooperation, Hayden believes that the fundamental aim of environmental justice must be to ensure the existence of a just system of institutions.¹²¹ Hayden explains that current institutions involved in climate change not only perpetuate inequality, but are also riddled by problems of non-compliance, national interest, and lack of enforcement.¹²² His argument is similar to Pogge’s, who defends the concept of reforming global institutional system in order to address inequalities in the distribution of justice. Hayden’s ideas on reform include a conception of ‘world environmental citizenship,’ where citizens are critical and informed, and are used as a vehicle to improve the effectiveness of global environmental governance.¹²³ In other words, global civil society will drive institutional reform which will increase the just distribution of environmental rights, and therefore increase environmental justice. Hayden’s account will be discussed in detail in Part II of the thesis. The brief description of his account above merely serves to illustrate the usefulness of the cosmopolitan account.

In summary, Hayden perceives climate change as a human rights issue, and applies principles of global justice to discuss how these rights should be distributed. His arguments are substantially different to those made in the statist, pragmatic, or utilitarian approaches

¹¹⁷ Hayden, P., ‘The Environment, Global Justice and World Environmental Citizenship’, in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 360

¹¹⁸ *Ibid.*, p. 361

¹¹⁹ *Ibid.*

¹²⁰ *Ibid.*, p. 362

¹²¹ *Ibid.*, p. 358

¹²² *Ibid.*, p. 366

¹²³ *Ibid.*, p. 370

outlined above, and there are several important strengths to Hayden's approach in terms of capturing the empirical realities of the climate change problem. For one, Hayden's approach rests on the assumption that climate change threatens the rights of individuals. This cosmopolitan focus on the individual is useful for the assessment of which human interests are threatened by climate change, because a focus on individuals facilitates a discussion of the interests of these individuals. In addition, Hayden appears to be aware of the importance of the need for collective action, and he discusses what should be done, in a moral sense, to reform current global cooperative action on climate change in detail. Overall, Hayden seems to offer a more in depth approach to the normative assessment of the climate change problem than the other approaches in this chapter have been able to provide. From this, it seems that the cosmopolitan account is more suited to addressing the empirical conditions discussed in the previous chapter. This will be further illustrated below with the help of Simon Caney's account of global justice and climate change.

Caney argues that climate change threatens important human interests.¹²⁴ He assumes that 'persons have fundamental interests in not suffering from: drought and crop failure, heatstroke, infectious diseases, flooding and the destruction of homes and infrastructure, enforced relocation, and rapid, unpredictable, and dramatic changes to their natural, social, and economic world, all of which will occur as a consequence of climate change.'¹²⁵ From this, he infers that persons have the human right not to suffer from the disadvantages generated by climate change.¹²⁶ Caney goes on to define specific human rights related to climate change, including the right to life, the right to health, the right to property, and the right to sustenance.¹²⁷ In terms of these human rights, Caney does not support 'rights-discounting,' a concept which implies that the rights of people alive today are more important than the rights of future generations. Caney asserts that the rights of people in the twenty-first century are as important as those in the twenty-third century, because human beings have rights no matter their time or place of birth.¹²⁸ This is a complex non-relational argument that will be expanded on in Chapter Three. For now, the chapter serves to briefly outline Caney's approach to illustrate the usefulness of the cosmopolitan approach.

¹²⁴ Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 767

¹²⁵ *Ibid.*, p. 768

¹²⁶ *Ibid.*

¹²⁷ Caney, S., 'Climate Change and the Future: Discounting for Time, Wealth, and Risk' in *Journal of Social Philosophy*, 40 (2009), p. 167

¹²⁸ Caney, S., 'Human Rights, Climate Change, and Discounting' in *Environmental Politics*, 17 (2008), p. 540

In order to ensure that the rights he defines are not violated, Caney develops a theory of climate justice, which fairly distributes the global benefits and burdens of climate change.¹²⁹ Caney divides climate change burdens into burdens of adaptation and burdens of mitigation. He explains that mitigation burdens are the costs of actors not engaging in activities that contribute to global climate change, an opportunity cost of forgoing the emission of GHGs.¹³⁰ Adaptation burdens are the costs to the persons of adopting measures which enable them and others to cope with the ill effects of climate change.¹³¹ For example, spending money on inoculating people from infectious diseases, building protective walls around areas where sea levels will rise, or sending overseas aid to victims of malnutrition.¹³² He notes that it is widely recognized that, whatever happens, some adaptation is required. Even if emissions are cut dramatically, the carbon dioxide already present in the atmosphere will induce some climate changes.¹³³ This is a similar point to Lomborg's, who asserts that both adaption and mitigation will need to be paid for. However, unlike Lomborg, who claims that mitigation should be put off until better technology is developed, Caney argues that both adaptation and mitigation measures must be taken immediately.

Caney develops a distributive principle based in his conception of global environmental justice to discuss how adaptation and mitigation burdens should be distributed. This principle prioritizes the interest of the global poor, and proposes that persons should bear the burden of climate change that they have caused so long as doing so does not push them beneath a decent standard of living.¹³⁴ This implies that the wealthy have more of an obligation to pay for the burdens of climate change. Furthermore, he suggests that the least advantaged have a right to emit more GHGs in order to develop further until better technology is available. However, he stresses that the least advantaged have a duty of developing in ways that do not involve high levels of GHG emission, if they can do so without great cost to themselves.¹³⁵ Caney believes that until these less developed countries become richer, the burden of dealing with climate change should rest

¹²⁹ Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 748

¹³⁰ *Ibid.*, p. 751

¹³¹ *Ibid.*, p. 752

¹³² Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 204

¹³³ *Ibid.*, p. 205

¹³⁴ *Ibid.*, p. 218

¹³⁵ *Ibid.*, p. 220

predominantly on the wealthy actors of the world.¹³⁶ He asserts that all agents who are sufficiently affluent should help, whether it is firms, individuals, sub-state political authorities, or international financial institutions.¹³⁷ Put simply, Caney's approach is sensitive to who can bear the burdens of climate change and why.¹³⁸ Caney's conception of fair distribution will be further explored in Chapter Five. The brief explanation of the main tenets of Caney's argument in this chapter merely serves to illustrate the usefulness of his normative approach in comparison to the statist, utilitarian and pragmatic approaches assessed above.

In summary, Caney's model provides a very strong normative framework with which to assess climate change and pegs thresholds for responsibility and action. Although his approach does not provide a specific institutional road map, it does provide key elements of justice from which to inform and restructure institutional frameworks. His approach captures the empirical realities of the climate change problem more completely than any approach discussed in this chapter, incorporating all four issues defined in Chapter One. Caney bases his approach on specific human interests threatened by climate change, carefully considers future generations by discussing rights discounting, his model of the fair distribution of the benefits and burdens of climate change involves a discussion of less developed countries, and he establishes his own model for a just distribution which is based on the need for collective action.

In addition to capturing the empirical conditions of climate change more fully than the statist, pragmatic, and utilitarian accounts, Hayden and Caney's accounts are illustrative of three important reasons why a cosmopolitan approach may be best suited for the normative assessment of the climate change problem. First, the cosmopolitan approach is useful because it focuses on the moral worth of the individual. Climate change brings up a number of ethical issues which concern individuals. GHG emissions are not confined to states, but can be caused by any individual regardless of their place of birth. Similarly, climate change can affect any individual in any state. This implies that individuals are both the victims and cause of climate change, raising distributive questions about which individuals should be protected and which individuals may have to refrain from emitting. The cosmopolitan position is suited to addressing these questions because of its focus on

¹³⁶ Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 770

¹³⁷ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 219

¹³⁸ Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 771

the normative significance of the individual. Furthermore, as discussed in Chapter One, the primary victims of climate change will be those living in less developed countries and future generations. An understanding of equal moral worth of humans allows global justice theorists to argue that it is unfair that individuals in less developed countries and future generations will be the primary victims of climate change, because the effects of climate change cause these groups of individuals to be treated as morally unequal. Because of this understanding global justice theorists are able to argue that we need greater collective action on climate change in order to rectify the unequal treatment of morally equal human beings. In this way, global justice theorists are able to effectively capture the empirical reality of climate change.

Second, the cosmopolitan approach leaves room for exploring ethical considerations while still allowing for empirical and practical concerns to be addressed. Cosmopolitan global justice theorists do not shy away from addressing the normative concerns raised by climate change. Cosmopolitans directly engage in assessing which human interests are threatened, what is owed to future generations and less developed countries, and how to distribute benefits and burdens through collective action. This can be seen in Hayden's account, which begins to grapple with considerations about why humans should be protected from climate change, and why institutions must be just. It can especially be seen in Caney's account, where he not only develops a set of human rights directly related to climate change, but also engages with the idea of how much is owed to future generations, and thinks through how to define benefits and burdens, along with how these might be distributed fairly among developed countries and less developed countries.

Third, the cosmopolitan approach has merit because it is critical of the status quo. Cosmopolitan theorists concern themselves with what is fair and just, and are interested in reforming institutions, laws, and procedures in order to meet a condition of justice.¹³⁹ This inevitably involves changing structures and systems.¹⁴⁰ Hayden's approach, for example, is conducive to challenging the status quo. Hayden's conception of institutional inequality, and the role of citizens to reform it, illustrates an understanding that current generations are not trapped in an existing system. This premise speaks to challenging the status quo, rather than accepting it, which is arguably what the statist approach does. In addition, the utilitarian and pragmatic approaches do not successfully engage in a normative discussion of why the current system must be changed. Pragmatists avoid normative discussion

¹³⁹ Gardiner, S. M., 'Ethics and Climate Change: An Introduction' in *Ethics and Climate Change* 1 (2010), p. 64

¹⁴⁰ *Ibid.*

altogether, and utilitarians currently focus on cost-benefit analysis, which limits normative discussion. It was explained in Chapter One that climate change involves complex considerations which will require sustained collective action. It is inevitable that collective action will involve some structural change, and the fact that cosmopolitans are open to change is helpful for the normative assessment of the climate change problem.

In addition to these three strengths of the cosmopolitan account, there is a final point to be made about the usefulness of the global justice approach: namely that climate change is arguably an issue of global justice by its very nature. If the climate change problem is an issue of global justice by its very nature, then a global justice approach will logically be particularly suited for the normative assessment of the climate change problem. Climate change can be considered a global justice problem for two main reasons.

First, it is a truly global problem: it affects all people, and is caused by all people, as emissions cannot be confined within states. Steven Vanderheiden argues that these empirical conditions mean that for once, the global nature of the problem defies conventional assumptions about state sovereignty and geographically bounded justice.¹⁴¹ In other words, climate change is a matter of global justice because it truly involves every individual on the globe, regardless of their location. Furthermore, the world's nations and peoples, both present and future, depend on a global scheme of cooperation for their continued access to the vital conditions provided by climatic stability, and are therefore part of a global justice community¹⁴² or what is often referred to as an 'overlapping community of fate,' to use a term famously coined by David Held.¹⁴³ While critics of global justice may be right to hold that such interdependence does not arise among nations in other ways, for example through a common global economy, they would surely be wrong to hold that nations are not interdependent in their common reliance on the services provided by the earth's atmosphere.¹⁴⁴ The argument here is that individuals around the world are truly in a globally interdependent community as a result of the empirical conditions of climate change.

Second, climate change presents an unfair distribution of climate related benefits and burdens on a global level. Climate change will most negatively affect less developed

¹⁴¹ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. xiv

¹⁴² *Ibid.*, p. 105

¹⁴³ Held, D., *Cosmopolitanism – Ideals and Realities* (Cambridge: Polity Press, 2010), p. x

¹⁴⁴ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 105

countries who have done the least to contribute to the causes of climate change, while developed countries, who have contributed the most emissions, will suffer the least.¹⁴⁵ As discussed in Chapter One, this is because less developed countries are located in areas which will bear most of the problems associated with climate change, and furthermore because these nations do not have the ability to adapt to dangerous weather patterns. Developed countries, on the other hand, are located in areas which are not predicted to suffer extreme weather conditions to the same extent or as quickly. Furthermore, developed countries have the capability of coping with weather changes because of their existing institutional and financial power. In this sense climate change presents a case of global injustice.¹⁴⁶ As Paul Harris argues, the empirical conditions of climate change ‘cry out for justice’, as climate change is imposed on people who are already poor, cannot adequately protect themselves, and have no real say in the matter.¹⁴⁷ In other words, climate change is an issue of global justice because those worst off are forced to deal with an issue which they did not cause and cannot defend themselves from, and which they have no power to change because of their weak position in global decision making.

For all of the reasons outlined above, a cosmopolitan global justice approach is arguably the most attractive for the normative assessment of the climate change problem. The approach seems to best capture nuanced and complex global issues that arise as a consequence of the empirical conditions of climate change. The cosmopolitan approach is able to address which human interests are at stake, what is owed to future generations and less developed countries, and thoroughly discuss what collective action must be taken. These four issues are part and parcel of the climate change problem, as discussed in Chapter One. It was illustrated above that the statist, pragmatist, and utilitarian accounts are each too limited to fully address the empirical realities of the climate change problem, and therefore cannot, on their own, provide a basis for the normative assessment of the climate change problem. In addition, climate change seems to represent a problem of global justice by its very nature. For these reasons, the thesis will use the cosmopolitan global justice approach for the assessment of the climate change problem. This is not to say that there are no other approaches that might be useful for this assessment, but that the use of the cosmopolitan approach is warranted. The thesis does not aim to represent the

¹⁴⁵ World Bank, ‘World Development Report 2010 – Development and Climate Change’ (Washington DC: The World Bank, 2010) <http://www.worldbank.org/wdr2010> [accessed 28.03.2012], p. xx

¹⁴⁶ Vanderheiden, St., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. xiv

¹⁴⁷ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 37

'best' approach for the assessment of the climate change problem, but rather an approach that has been proven to be useful for this assessment.

Conclusion

This chapter provided a review of climate ethics literature and involved the critical assessment of four approaches found within this literature: statist, pragmatic, utilitarian, and cosmopolitan. Each approach was outlined and assessed on how well it addresses the empirical background conditions of climate change. It was argued that the statist approach is unable to capture the empirical realities of the climate change problem because of its refusal to acknowledge universal principles of distributive justice. The pragmatic approach, although more engaged with the problem of climate change, was argued to be too limited in scope to capture the complex issues that arise in the case of climate change. Similarly, the utilitarian approach, although engaged with issues surrounding climate change, proved problematic because of its limited focus on cost-benefit analysis. In the final section, the chapter put forward that the cosmopolitan approach is the most useful for a normative assessment of the climate change problem because cosmopolitan theories of global justice can best address the complex issues which arise as a result of the empirical conditions of climate change, and because climate change is arguably a problem of global justice by its very nature.

This chapter concludes Part I of the thesis: 'Defining the Problem.' Part I laid the foundations for the assessment of the climate change problem from a global justice perspective, firstly by providing an understanding of the climate change problem which the assessment can be based on, and secondly by situating global justice theory in the wider climate ethics literature while making the case for its usefulness for the normative assessment of the climate change problem. The thesis now turns to this assessment. Part II of the thesis will normatively assess the empirical conditions of climate change discussed in Chapter One, and in doing so, develop a cosmopolitan climate justice position.

Part II: Developing a Global Justice and Climate Change Position

Chapter Three – The Scope of Climate Justice

Introduction

Part I of the thesis: 'Defining the Climate Change Problem,' outlined the problem of climate change and illustrated why a cosmopolitan approach is appropriate and useful for the normative assessment of the climate change problem. The thesis now turns to this normative assessment, in Part II 'Developing a Global Justice and Climate Change Position.' Part II consists of three chapters, which assess the climate change problem from a global justice perspective with the aim of developing an original climate justice approach. The current chapter, and the two which follow, will address the four main issues associated with climate change identified in Chapter One, namely which human interests are at stake, how much is owed to future generations, how to include less developed countries in climate change action, and who makes up the responsible 'collective' in collective action. In this way, Part II addresses the empirical background conditions outlined in Chapter One, and, in doing so, develops a climate justice position. The development of this position is split into three chapters, as there are three broad discussions required: defining the scope of justice, defining the grounds of justice, and defining what justice demands. These three discussions will consider past work on global justice and climate change, and build on this in order to advance and solidify a cosmopolitan approach to climate change. Overall, Part II of the thesis will lay the foundations for the third and final Part of the thesis, which concerns the assessment of current climate change governance practice from a global justice perspective.

The current chapter, Chapter Three, concerns defining the scope of justice, and will be organized as follows. It will begin with a brief note on scientific uncertainty and how this relates to the cosmopolitan position taken in this thesis. Following this, the remainder of the chapter will advance the first tenet of the climate justice position defended in this thesis: the scope of climate justice. The chapter will discuss the merits of a non-relational vs. relational approach to climate justice, and argue that both relational and non-relational elements of global justice are necessary to fully capture and understand the normative demands which stem out of the special relationships created by climate change. Following this, the chapter will outline and defend a mixed approach, which will comprise the scope of climate justice. The chapter will conclude with a summary of what has been argued.

A Note on Scientific Uncertainty

Scientific uncertainty is an unavoidable subject, because climate change science is, at the time of writing, not considered to be undisputable. Each of the five reports produced by

the Intergovernmental Panel on Climate Change (IPCC) discusses some degree of uncertainty. The IPCC does not claim that its findings are one hundred percent certain, and it is made clear in the reports that models used to predict the effects of climate change are not without their problems. Predicting the future response of the atmosphere and climate systems is by no means a straightforward or simple task, which is why a degree of uncertainty of the future remains. This degree of scientific uncertainty has been, in the past, used as a reason for inaction. Governments, most notably in the United States of America, have refused to take part in global climate change deals, citing scientific uncertainty.¹ This phenomenon extends beyond governments, as there are individuals who simply do not believe that there is enough evidence to be certain about the effects of climate change, and therefore consider action to be unnecessary. A response to these critics of climate science would be to reassert that the thesis is based on best available evidence, as was explained in Chapter One. Nevertheless, it is important to meet potential critics head on and explain why scientific uncertainty does not weaken the cosmopolitan position taken in this thesis.

The first response to these critics is that the level of scientific uncertainty is not as widespread and significant as it is often claimed to be by climate change skeptics. For example, the IPCC explains that it is extremely likely (95% chance) that human influence has been the dominant cause of climate change since the mid-20th century, as was explained in Chapter One.² This is a significant amount of certainty, especially when considering that this reflects the opinion of over 9,000 scientists who specialize in the study of climate change. If it is virtually certain that humans are the main cause of climate change, this brings with it the certainty that humans will have to act in order to prevent climate change or at least weaken its effects. Climate change will not disappear on its own: humans must make changes in order to influence the atmospheric concentration of greenhouse gases (GHGs). Thus it seems that the problem of uncertainty no longer lies with the question of whether humans cause climate change, but rather how much should be done about climate change.

Deciding how much action to take on climate change relates to uncertainties about the effects of climate change. However, even though there are undoubtedly uncertainties involved in the modelling of future scenarios, it is important to stress that these

¹ Shue, H., *Climate Justice: Vulnerability and Protection* (Oxford: Oxford University Press, 2014), p. 4

² Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 5

uncertainties are not as widespread or significant as skeptics make them out to be. For one, there is a level of certainty that arises from the fact that climate change effects are already occurring. Chapter One explained that the warming of the climate system is now considered unequivocal by the IPCC.³ This IPCC is virtually certain (99-100%) that surface and atmospheric temperatures as well as in temperatures of the upper hundred meters of global oceans have warmed over the last decades.⁴ Furthermore, the IPCC has high confidence that this warming has resulted in a diminishment in ice and snow, and a rise in sea levels.⁵ According to the IPCC, over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease.⁶ This widespread melting of ice is having an effect on sea level rises. According to the IPCC, over the period 1901–2010, global mean sea levels rose by 0.19 meters.⁷ This rise is significant, as the rate of sea level rise since the mid-19th century has been larger than the mean rate during the previous two millennia.⁸ The fact that these changes are already observable gives weight to the level of certainty that GHG emissions have, and will continue to have, an effect on the global climate.

In addition, although there remain some uncertainties, the IPCC reports contain a high level of certainty about a majority of predicted effects.⁹ For example, the 2014 report claims that it is very likely (90-100%) that heat waves will occur more often and last longer, and that extreme precipitation events will become more intense and frequent in many regions.¹⁰ The IPCC is also virtually certain (99-100%) that near-surface permafrost extent at high northern latitudes will be reduced as global mean surface temperature increases.¹¹ In addition, the IPCC predicts that global mean sea-level rise will continue during the 21st century, very likely (90-100%) at a faster rate than observed from 1971 to 2010.¹² Finally, the IPCC claims that it is likely (66-100%) that global surface temperature changes for the

³ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 3

⁴ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 39

⁵ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Synthesis Report: Summary for Policy Makers* www.ipcc.ch/ [accessed 04.11.2014], p. 3

⁶ *Ibid.*, p. 5

⁷ *Ibid.*, p. 6

⁸ *Ibid.*

⁹ Caney, S., 'Climate Change and the Future: Discounting for Time, Wealth, and Risk' in *Journal of Social Philosophy*, 40 (2009), p. 178

¹⁰ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Synthesis Report: Summary for Policy Makers* www.ipcc.ch/ [accessed 04.11.2014], p. 8

¹¹ *Ibid.*, p. 9

¹² *Ibid.*

end of the 21st century (2081-2100) will exceed 1.5°C.¹³ Heat waves, extreme precipitation, melting ice, sea level rises, and rising temperatures are the key effects of climate change, as discussed in Chapter One. The level of certainty around these effects is very high, or quite high in the case of temperature change. This level of certainty is significant when considering how many thousands of scientists have been involved in finding a consensus on the likelihood of these effects. In sum, although it is undeniable that there is uncertainty of the exact effects, there is a high level of certainty of key predicted effects, which is based on the research of a significant number of experts in the field.¹⁴

From the above, it can be argued that although some uncertainty remains, this is not enough to undermine the cosmopolitan position taken in this thesis. The key effects of climate change are already occurring, and scientists are very certain that they will continue to worsen, and threaten human interests, as was explained in Chapter One, and as will be further discussed in Chapter Four. The potential cost to human life is therefore too high to gamble on the level of uncertainty that currently exists.¹⁵ Even though there is some uncertainty about how serious the effects will be, it is undisputed that climate change will have detrimental effects. For this reason it is no longer undisputed that humans will suffer, and uncertainty merely lies in the question of how many will suffer. This thesis takes the cosmopolitan view that human suffering is morally important, and for this reason it is important to act on climate change. This view will be expanded on throughout the thesis. On this cosmopolitan view, waiting for absolute certainty on the amount of human suffering is not required for action, because certainty that humans will suffer already exists. This idea is not unusual among cosmopolitan climate change scholars. Stephen Gardiner for example argues that the predicted magnitude of loss to human life and threats to basic human rights is so serious that only a very high level of uncertainty could warrant inaction on climate change.¹⁶ Simon Caney agrees, and believes there should be no hesitation to act, and instead the world should act as if it were beyond a doubt that the harmful effects will materialize.¹⁷ Finally, Dale Jamieson argues that ‘there are many uncertainties concerning

¹³ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Synthesis Report: Summary for Policy Makers* www.ipcc.ch/ [accessed 04.11.2014], p. 8

¹⁴ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 195

¹⁵ Shue, H., ‘Deadly Delays, Saving Opportunities: Creating a More Dangerous World?’ in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 147

¹⁶ *Ibid.*, p. 148

¹⁷ Caney, S., ‘Climate Change and the Future: Discounting for Time, Wealth, and Risk’ in *Journal of Social Philosophy*, 40 (2009), p. 180

climate change, yet we cannot wait until all the facts are in before we respond - all the facts may never be in.’¹⁸ For all of the reason above, this thesis will develop a climate justice position based on the idea that action on climate change is required even in the face of scientific uncertainty. What exact action is required is still to be determined in the remainder of the thesis. The first step to determining this is to define who should be included in the scope of justice, a question to which the chapter now turns.

The Scope of Justice

Defining the scope of justice is an essential part of any global justice position, because doing so clarifies who must be included in considerations of justice, or in other words how wide the net of justice should be cast. This thesis makes the case for a particular conception of the scope of climate justice: namely one that is both relational and non-relational. The discussion below will illustrate why these two approaches should be combined in the case of climate change, and will demonstrate how this can be achieved. Chapter Five will return to this mixed approach to climate justice and explain how the mixed account can be put into practice in order to develop demands of climate justice. The scope of justice defended here presents a unique approach to climate justice, because existing climate justice scholars implicitly or explicitly rely on either a non-relational or relational scope of justice. The development of a mixed position aims to bridge the divide between the two positions by illustrating that the two positions are not only compatible in the special case of climate change, but furthermore that both relational and non-relational elements are necessary to fully understand and address the relationships created by climate change.¹⁹

In order to make the case for a mixed position, existing accounts of non-relational and relational climate justice will now be outlined below. Each account will be briefly assessed on how well it is able to engage with the realities of the climate change problem, and specifically the relationships which stem out of the empirical conditions of climate change. This discussion will point to strengths and weakness of each account, which will be elaborated on when making the case for a mixed approach. Making the case for a mixed approach will involve a detailed discussion of the relationships created by the climate change problem, and expand on the strengths and weaknesses of both accounts in

¹⁸ Jamieson, D., ‘Ethics, Public Policy, and Global Warming’ in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 78

¹⁹ The thesis does not assume that non-relational and relational positions can or should be mixed in all instances – the argument here relates directly to the climate change problem.

capturing these relationships. Finally, the mixed position will be outlined in order to provide clarity on what exactly a mixed climate justice approach entails.

The Relational Account

The relational account, as briefly explained in the previous chapter, emphasizes the importance of relationships as a basis for justice. Relational accounts are usually grounded in the idea that social relationships and/or political institutions fundamentally alter the relations in which individuals stand, and hence the principles of distributive justice that are appropriate to them.²⁰ Importantly, relational theorists insist that principles of distributive justice cannot be formulated or justified independently of the practices they are intended to regulate.²¹ Relational accounts have two functions. The first is to provide context: a relational account defines the scope of justice as limited to certain relationships or institutions. For example, David Miller defines the scope of justice as limited to national borders, as discussed in the previous chapter. The second function of the relational account is to provide content: to illustrate what the demands of justice require within the defined scope, or context, of justice. The relationships and/or institutions defined by a relational account are typically existing relationships and institutions which involve actual interactions between peoples, and the relational account uses these interactions to highlight what exactly justice demands, basing the content of justice on the context, or scope, of justice. For example, for David Miller, the scope of justice is the nation state, and the content of justice is determined by what the needs are within a particular nation state, whether it be basic health care, education, or a fair tax system.²² In order to further explain this relationship between content and context, and what this implies in the case of climate change, two existing relational accounts of climate justice, put forward by Patrick Hayden and Steven Vanderheiden, will be examined below.

Hayden asserts that there is room for effective global institutions given the systematic interconnectedness and interdependency of the globalized political system, and especially the extensive global impact of environmental destruction and pollution.²³ He explains that the shared fates and interest of persons extend beyond political boundaries as environmental life becomes increasingly global, stretching the boundaries of justice.²⁴ Hayden argues that these relationships create true global interdependency, and therefore

²⁰ Sangiovanni, A., 'Global Justice, Reciprocity, and the State' in *Philosophy and Public Affairs*, 35 (2007), p. 5

²¹ *Ibid.*

²² Miller, D., *Justice for Earthlings* (Cambridge: Cambridge University Press, 2013), p. 5

²³ Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 357

²⁴ *Ibid.*, p. 358

makes the case for 'globalized' version of John Rawls' conception of justice in order to tackle climate change. Rawls' argument was outlined in previous chapter, and calls for an equal distribution of benefits and burdens through just social institutions within nation states. By calling for a globalized version of Rawls' account, Hayden is defining a global context, or scope of justice. As Hayden bases his ideas in Rawls' theory, Hayden's main concern is the existence of a just system of institutions.²⁵ He argues that in terms of climate change, international society has unjust institutions that perpetuate inequality, and therefore adapts Rawls' line of argument in order to reform these institutions.²⁶ This is the content of Hayden's relational position: the requirement that global institutions are reformed. In other words, according to Hayden, climate change creates relationships which establish the context, or scope of justice. The content, or demands, of justice are based on these existing relationships, and require the reform of global institutions that govern climate change action.

A second example of a relational climate justice account is explicated by Steven Vanderheiden, who also applies a Rawlsian approach. Like Hayden, Vanderheiden concentrates on reforming institutions, because he believes climate change will require both an international cooperative scheme and significantly expanded domestic institutions.²⁷ Vanderheiden defends a scope of justice that is grounded in the idea that the predicted effects of climate change result in substantial global relationships.²⁸ He uses this context of global relationships caused by climate change to argue that Rawls' theory of justice can be applied globally in order to reform global institutions so that they can fairly redistribute a basic good, defined by Vanderheiden as the global atmosphere. For Vanderheiden, this means using principles of distributive justice to allocate the capacity to absorb carbon.²⁹ Vanderheiden provides similar content, or demands of justice, as Hayden: justice demands that international institutions are reformed. Furthermore, like Hayden, Vanderheiden's demands of justice, or content, is based in the context of global relationships caused by climate change, as it requires reforming global institutions in order to make these global relationships fairer.

²⁵ Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 358

²⁶ *Ibid.*, p. 357

²⁷ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. xiv

²⁸ *Ibid.*, p. 79

²⁹ *Ibid.*

These two examples of relational justice highlight an important strength of the relational approach, namely capturing the complexities of the relationships created by the climate change problem. The relational approach emphasizes that climate change creates a unique set of relationships which are truly global. Every person on the planet can contribute to the problem, and will potentially be affected by its consequences, either directly by the predicted effects of climate change outlined in Chapter One, or indirectly by the changes these will cause, such as changes in global markets or increases in immigration. This results in unique relationships which in turn raises new ethical or distributive questions which may not have previously been addressed. A relational account is arguably necessary to answer these distributive questions, because the account focuses on these unique relationships as context, and forms content, or demands of justice that are directly linked to this context. This is especially important in the case of climate change, which involves relationships that raise questions of distributive justice, such as the relationship between developed and less developed countries. Distributive questions raised by this relationship include questions of which country is owed how much help in dealing with climate change, and which countries have the moral responsibility to act on climate change. This relationship will be further discussed when making the case for a mixed approach, for now the thesis is briefly pointing to the idea that climate change involves relationships that raise distributive questions the relational account is arguably suited to answering.

A scholar who has recognized the aforementioned strength of the relational account is David Miller, who defends the importance of basing content, or demands of justice, on context under the term 'contextualism' or the idea that a just distribution will depend on the social context in which the distribution is going to occur.³⁰ Miller explains that the relationship in which parties stand to one another must be properly understood before one can say what justice requires these parties to do.³¹ What Miller is stressing here is that it is important to ground demands of justice in existing relationships so that it is clear what is required to meet a condition of justice. Relationships raise distributive questions which can only be answered when considering the context of these relationships. Miller explains that if the parties in a relationship are defined, and it is clear in what relations parties stand, then the demands of justice will be not only more 'realistic,' but more easily implementable.³² This strength of the relational account will be further discussed when

³⁰ Miller, D., *Justice for Earthlings* (Cambridge: Cambridge University Press, 2013), p. 5

³¹ *Ibid.*

³² *Ibid.*, p. 247

making the case for a mixed approach below. For now, it has been only briefly introduced in order to make the case that the relational account presents a valuable approach to climate justice. However, although the relational account has a significant strength, the account also has an important weakness that is especially important in the case of climate change. Relational accounts arguably limit justice by restricting the context of justice to specific global relationships. This is problematic in the case of climate change because this could potentially exclude future generations from the scope of justice, which may mute present action on climate change. This will be further discussed below, when making the case for a mixed approach. Before the case for a mixed approach can be made, the non-relational account must be examined.

The Non-Relational Account

As briefly explained in the previous chapter, non-relational accounts of justice reject the idea that the scope of justice depends on the relations in which individuals stand.³³ Instead, non-relational accounts argue that no one should be unfairly worse off than anyone else, whether or not they share any institutions or special relationships.³⁴ Non-relational accounts can be broken down into the same two basic functions as relational accounts, namely to provide context and content. Non-relational accounts set out a global scope, or context, which includes all humans, by virtue of their humanity. Although all non-relational accounts share this context, or scope of justice, non-relational accounts can differ in terms of their content. Most commonly, non-relational contents are either sufficientarian or egalitarian.³⁵ Sufficientarian non-relational theorists defend a minimal content, which consists of a moral threshold every human is entitled to, for example basic human rights, or a certain standard of living. Egalitarian non-relational theorists defend the idea that egalitarian principles of distributive justice obtain at the global level, even in the absence of global associations, and therefore define a content that demands the egalitarian distribution of benefits and burdens.³⁶ The chapter will discuss both types of approaches below, after a brief overview of two strengths of the non-relational account in the case of climate change.

The first strength of the non-relational account is its focus on humans, which casts a wide net on who to include in moral considerations and sets a broad scope, or context of justice.

³³ Sangiovanni, A., 'Global Justice, Reciprocity, and the State' in *Philosophy and Public Affairs*, 35 (2007), p. 6

³⁴ *Ibid.*

³⁵ Caney, S., 'Humanity, Associations, and Global Justice: in Defence of Human Centred Cosmopolitan Egalitarianism' in *The Monist* 94(4) (2011), p. 527

³⁶ *Ibid.*, p. 528

This is very useful in the case of the climate change problem, because climate change involves every individual on the planet, as well as future peoples. It is therefore important that these individuals are included in moral discussions, and the non-relational account is especially suited for this, because it makes the case that all humans have equal moral worth, no matter their time or place of birth. In this way, non-relational accounts of justice consider future generations as having equal moral worth to present generations, a view that places urgency on action on climate change. This will be further discussed when making the case for a mixed approach below.

The second strength of non-relational accounts is that this account is arguably more comprehensive as a cosmopolitan position than relational accounts. Cosmopolitans take the equal moral worth of humans as their starting point. Defining justice as a condition of a special relationship, as relational justice scholars do, seems to contradict this cosmopolitan premise. Relational accounts focus on relationships and why they create the need for justice. This seems to imply that human worth is not enough to require distributive justice, and instead it is only when humans enter into relationships that distributive justice is required. This arguably appears incompatible with the cosmopolitan position, as equal moral worth is not defined as conditional by cosmopolitans. Tan Kok-Chor argues that ‘constraining the applicability of justice to whatever social arrangements we currently happen to have would arbitrarily favor the status quo, which is plainly contrary to the aims of justice.’³⁷ In other words, the non-relational account seems to support cosmopolitan aims of justice more fully than the relational account. This is an important advantage of non-relational accounts in terms of cosmopolitan consistency. The two strengths outlined above will here be accepted as an indication that a non-relational account can be considered a valid approach for climate justice.

However, the non-relational account suffers from an important weakness when it comes to addressing the realities of the climate change problem. Although non-relational accounts, whether sufficientarian or egalitarian, define content, or demands of justice, these demands are arguably limited in the sense that they skirt over the realities of the relationships created by climate change. For this reason, it can be argued that the demands of a non-relational account are less in tune with what is morally required to achieve a

³⁷ Kok-Chor, T., *Justice Without Borders* (Cambridge: Cambridge University Press, 2004), p. 59

condition of justice in the case of climate change. In order to explain this further, the chapter now turns to existing non-relational accounts.

Simon Caney defends a sufficientarian non-relational account of climate justice that is based on the idea that persons should be included in the scope of justice by virtue of their humanity.³⁸ More specifically, Caney grounds his conception of climate justice in human rights, implying that the scope or context of justice should be global, as every individual possesses these rights as humans. Caney defines three distinct rights, which are predicted to be threatened by climate change: the right to life, the right to food, and the right to health.³⁹ Therefore Caney's context, or scope, is every individual who possesses these rights, no matter their time or place of birth. Caney's approach, at least in the case of climate change, appears to be sufficientarian, as he concludes that any program of combating climate change should not violate the rights he defines and therefore sets a minimum moral threshold which cannot be crossed.⁴⁰ This minimum moral threshold, although useful in the case of climate change,⁴¹ limits the demands of climate justice. Climate justice, on this sufficientarian approach, concerns the demand that rights are not violated, but does not require anything beyond this. This is arguably problematic because this does not allow for a discussion on what justice might demand beyond not violating these rights in the case of climate change.

Mathias Risse has alluded to this problem facing sufficientarian non-relational accounts. Risse argues that recognizing the significance of basic rights does not readily deliver conclusions about precisely what is demanded of people under duties of justice.⁴² According to Risse, simply listing rights makes it difficult to assess not only how imposing duties are but also precisely what the content of duties is.⁴³ Risse claims that to protect the rights established by sufficientarian non-relational scholars requires references to associations (or relationships) for specific assignments of duties.⁴⁴ Only through reference to existing associations can we define specific obligations or prescriptions for action.⁴⁵ In

³⁸ Caney, S., 'Global Distributive Justice and the State' in *Political Studies*, 56 (2008), p. 491

³⁹ Caney, S., 'Climate Change, Human Rights, and Moral Thresholds' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 166

⁴⁰ *Ibid.*, p. 172

⁴¹ For example, not violating the three rights he defines will necessarily entail that emissions must be lowered at a global level in order to prevent climate change.

⁴² Risse, M., *On Global Justice* (Princeton: Princeton University Press, 2012), p. 130

⁴³ *Ibid.*

⁴⁴ *Ibid.*, p. 8

⁴⁵ *Ibid.*, p. 79

other words, Risse claims that a sufficientarian non-relational account, by identifying basic rights, only offers a very limited content of justice with unspecified demands. This is problematic in the case of climate change, which involves relationships which raise distributive questions which may give rise to demands of justice which go beyond the sufficientarian minimum of not violating human rights, for example the relationship between developed and less developed countries. This will be further discussed when the case for a mixed approach is made below, after an assessment of egalitarian non-relational justice.

Interestingly, outside of the climate change context, Caney defends what he refers to as 'humanity-centered cosmopolitan egalitarianism,' which is an egalitarian account of non-relational justice.⁴⁶ According to Caney, egalitarian accounts of non-relational justice can attribute ethical significance to relationships.⁴⁷ It is therefore worthwhile to assess whether an egalitarian non-relational account avoids the weakness sufficientarian accounts face, even though Caney does not explicitly defend an egalitarian non-relational account of climate justice. Egalitarian non-relational accounts define a global scope or context of justice and define a content of justice that is based on a fair distribution of benefits and burdens. This content is arguably more prescriptive than the minimal content of not violating certain human rights, according to Caney.⁴⁸ In addition, Caney puts forward that this egalitarian position is able to accommodate the thought that increased ties have normative implications for people's entitlements, or in other words, can take into account the normative significance of the context of existing relationships.⁴⁹

Caney explains this in the following way: 'although humanity-centered cosmopolitan egalitarians hold that some distributive principles apply independently of persons' membership of a common association, the substantive implications of those principles will be affected by the extent to which persons belong to a common association and the extent to which that association is coercive and characterized by high levels of interdependence.'⁵⁰ What Caney is implying here is that the distribution of benefits and burdens will depend on the context of existing relationships. Caney uses the example of the right to health to illustrate his point. He explains that although every human is entitled to the highest

⁴⁶ Caney, S., 'Humanity, Associations, and Global Justice: in Defence of Human Centred Cosmopolitan Egalitarianism' in *The Monist* 94(4) (2011), p. 507

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*, p. 508

⁴⁹ *Ibid.*, p. 525

⁵⁰ *Ibid.*, p. 526

attainable standard of healthcare, the standard which persons receive will depend on where they live.⁵¹ If a community is for example isolated and has no roads by which medicines can be delivered, then the highest standard of healthcare this community can receive is lower than the standard which can be received in other, more connected, communities.⁵² As the isolated community becomes more connected, the standard of healthcare they receive will improve. The point Caney is making is that ‘what justice means in practice will vary as interdependence increases.’⁵³ According to Caney accepting this implies that egalitarian accounts of non-relational justice are able to capture the ways in which existing relationships have moral relevance for distributive justice.⁵⁴ In other words, Caney is claiming that egalitarian non-relational accounts can factor in existing relationships, which arguably implies that existing relationships of climate change could be factored into a non-relational account of climate justice.

Caney’s assertions serve to answer the critiques of the sufficientarian non-relational account raised above. Caney claims that existing relationships can be taken into account, which is what both Miller and Risse believe to be necessary in order to explicate demands of justice. However, the question is whether it is enough, in the case of climate change, that it is acknowledged that existing relationships are morally relevant in the sense that they can affect distribution, or whether existing relationships should instead determine the content of justice, as they do in relational accounts. It will be argued below that in the case of climate change it is not enough to accept that existing relationships are morally relevant. In order to explicate demands of justice which are in tune with the realities of the climate change problem, morally relevant relationships must be used to explicate demands of justice, or in other words, be more substantially factored into the climate justice position than sufficientarian and egalitarian non-relational accounts allow them to be. This will be further explained below, as the chapter turns to defending the mixed approach.

The Case for a Mixed Approach

Cosmopolitan climate justice literature seems to posit a strict dichotomy between non-relational and relational accounts of cosmopolitan justice, as if a clear either/or choice must exist between the positions. This is reflected in the fact that cosmopolitan justice scholars explicitly or implicitly pick one position or the other for their account of climate

⁵¹ Caney, S., ‘Humanity, Associations, and Global Justice: in Defence of Human Centred Cosmopolitan Egalitarianism’ in *The Monist* 94(4) (2011), p. 526

⁵² *Ibid.*, p. 527

⁵³ *Ibid.*

⁵⁴ *Ibid.*, p. 529

justice.⁵⁵ However, as briefly outlined above, in the case of climate change, both positions have their advantages, and importantly, disadvantages. These advantages and disadvantages will now be further discussed in order to make the case for a mixed approach to climate justice. What follows are two examples of relationships unique to the climate change problem, which aim to illustrate the need for a mixed approach. The first is the relationship between developed and less developed countries, and the second is the relationship between future and present generations. Each example will be taken in turn.

It was explained in Chapter One that climate change will most negatively affect less developed countries due to their lack of resources and/or their geographical location.⁵⁶ This creates a relationship between developed and less developed countries, because developed countries are engaging in behavior which endangers the people living in less developed countries. To complicate matters, some less developed countries are now developing to the point where their emissions are higher than developed countries (for example China or India, as will be discussed in Chapter Five). This raises questions about how much developed countries owe to less developed countries, and whether some less developed countries may need to contribute to the global climate change reduction efforts due to their level of emissions and/or wealth. These questions are by their nature questions of distributive justice, because they concern what is owed and what is deserved, and more specifically how benefits and burdens should be distributed. A climate justice account must be able to answer these distributive questions, because less developed countries are part and parcel of the climate change problem, as was explained in Chapter One.

The distributive questions outlined above are not merely theoretical. Global negotiations under the United Nations Framework for the Convention on Climate Change (UNFCCC) have revealed that less developed countries are very concerned with making it clear that the developed countries are historically at fault. These concerns are reflected in the Convention on Climate Change, which states that ‘the largest share of historical and current global emissions of greenhouse gases has originated in developed countries.’⁵⁷ As a result of this historical responsibility, the UNFCCC calls exclusively on developed countries to ‘take

⁵⁵ Cosmopolitan scholars outside of climate justice appear to make the same distinction. However, this thesis is concerned with defending a mixed approach in the specific context of climate change.

⁵⁶ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 25

⁵⁷ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 2

immediate action.⁵⁸ The fact the UNFCCC, which has 195 member states, agreed to put into writing the historical responsibility of developed nations and uses this responsibility as grounds for action, reflects the fact that the relationship between less developed and developed countries raises distributive questions which must be answered such as, what does historical fault imply for responsibility? The thesis will provide a thorough discussion of this question and the distributive questions outlined above in Chapter Five. For now, the thesis aims to illustrate that answering such distributive justice questions is a matter of relational justice, and that a non-relational account is arguably less suited for capturing the realities of this relationship, and answering the distributive questions outlined above.

A sufficientarian non-relational account, for example, could assert that there is a duty to stop violating certain human rights, which could be used to make the case for lowered emissions by developed countries in order to protect the rights of people living in less developed countries. However, a non-relational account is arguably not able to incorporate the nuances of the relationship between less developed and developed countries beyond these minimal demands. This is an important weakness, because the relationship between less developed and developed countries involves more than the problem of human rights violations, as was explained above. The relationship raises questions about historical responsibility, what is owed to less developed countries, and how much high emitting less developed countries must engage in mitigating climate change. A sufficientarian account could not base demands of distributive justice on these types of questions, because it sets a moral minimum of human rights or a decent standard of living as the sole demand of justice and does not go beyond this.

To illustrate, consider the following scenario. Imagine that five people want to share a cake. A non-relational sufficientarian account would require that all five individuals get a certain amount of cake which is in line with the sufficientarian moral minimum defined. For example, sufficientarians who defend a right to life may say that each person is entitled to a number of calories which will keep them alive. However, if the cake has more calories than are required to keep five individuals alive, then it is unclear what each person is entitled to under the demands of justice specified under the sufficientarian account. Under this account, individual A, who is greedy and arrogant, and believes that she deserves more, could reasonably take the biggest piece by force, leaving four pieces which each have

⁵⁸ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 4

enough calories for the remaining individuals. This would not be unjust under a non-relational sufficientarian account, because the basic rights of the other four individuals would not be violated. Applied to the climate change case, this implies developed countries could take more of the emissions share than less developed countries, as long as the right to life of individuals in less developed countries is protected. However, this ignores complexities like historical fault, level of development, or level of wealth, all of which raise questions about distribution. A sufficientarian account presents demands that are too simple to capture the complexities of this relationship, because it cannot provide demands of justice which are specific to the relationship between developed and less developed countries.

Simon Caney offers a response to this type of criticism. He claims that egalitarian accounts of non-relational justice can accommodate the thought that increased ties (relationships) have normative implications to people's entitlements of distributive justice, as was explained above.⁵⁹ Egalitarian non-relational accounts are, according to Caney's defense, able to capture the moral relevance of the relationship between developed and less developed countries, and could explain that the human beings must be treated in an egalitarian manner within this relationship. However, although Caney explains that relationships have 'morally significant' implications on demands of justice, he denies that relationships need to be factored in, in order to explicate demands of justice. For this reason, it is arguably questionable whether an egalitarian non-relational account could truly capture the complexities of the relationship between developed and less developed countries, because this relationship raises distributive questions that cannot be fully addressed by demanding that there should be an egalitarian distribution. Answering these distributive questions will arguably require a thorough exploration of the complexities of the relationship between developed and less developed countries, and outlining demands of justice that are specific to this relationship, which requires a relational account of justice. Taking relationships as a starting point for grounding demands of justice means that the complexities of those relationships can be addressed, and answers to the distributive questions raised by a relationship can form a constitutive part of the climate justice position, rather than something which is considered after the demands have already been defined.

⁵⁹ Caney, S., 'Humanity, Associations, and Global Justice: in Defence of Human Centred Cosmopolitan Egalitarianism' in *The Monist* 94(4) (2011), p. 525

To illustrate this more simply, consider the cake scenario again. Under an egalitarian account, the five individuals would not merely be entitled to enough calories to stay alive, but to an egalitarian distribution of the pieces of cake. However, without discussing the relationships between the five individuals eating cake, it would be difficult to define what is required for egalitarian distribution. Caney claims that the moral relevance of relationships is taken into account in the egalitarian position, in the sense that the account can acknowledge that relationships will affect distribution. Caney could on this logic acknowledge that the greedy and arrogant individual A will take more cake, and that will affect distribution, just as the access to health care affects the distribution of the right to health. However, without considering the relationship between individual A and the other four individuals, this simple acknowledgment can potentially skirt over the realities of the relationship, which may raise distributive questions. For example, individual A may be a serial cake-stealer, and never allow the other four individuals a bigger piece, even though these four individuals bought the ingredients for the cake and baked it. This may seem insignificant, but in the case of climate change, developed countries have historically taken the biggest share of emissions, which is now causing climate change, which will harm persons in less developed countries who have not contributed to global emissions. In addition, some less developed countries are now developing at a rate which has placed them into the top ten of highest emitting countries. This raises distributive questions about how much developed countries owe less developed countries, and whether less developed countries have any moral responsibility to address climate change when they have so far not contributed to the problem on the same scale as developed countries. An egalitarian non-relational model which simply calls for an egalitarian distribution shirks over these questions by putting a blanket 'egalitarian' principle in place.

A relational approach, by contrast, would take the distributive questions raised by the relationship between developed and less developed accounts into account when formulating demands of justice. This is because relational accounts are based on the idea that principles of distributive justice cannot be formulated or justified independently of the practices they are intended to regulate.⁶⁰ In the cake scenario, a relational account would take the relationship between the five individuals as a starting point, and explore what is owed to whom in the basis of this relationship. The relational account could discuss whether the four individuals who bought the ingredients for the cake may deserve more

⁶⁰ Sangiovanni, A., 'Global Justice, Reciprocity, and the State' in *Philosophy and Public Affairs*, 35 (2007), p. 5

than individual A, or whether Individual A, due to her past behavior, may deserve less than the others. In the case of climate change, a relational account could take the relationship between less developed and developed countries as a starting point, and answer whether historical fault has implications on responsibility, or whether level of emissions, rather than level of development, has a bearing on how much countries must contribute to global mitigation efforts. The relational account could then formulate demands of justice which serve to answer these questions directly, instead of skirting over them, and merely acknowledging their moral significance, as in Caney's egalitarian account.

In sum, what is being put forward here is that a thorough discussion of the distributive questions raised by the relationship between developed and less developed countries arguably requires a relational account, because this account formulates demands of justice which are based on the specifics of relationships. On this logic, a relational account is required for the development of a climate justice position that concerns itself, in part, with the question of how less developed countries factor into the climate change problem. The thesis argued in Chapter One and Two that this question stems from the empirical realities of the climate problem, and must therefore be answered. For this reason, the climate justice position will, in part, be based on a relational conception of justice. The chapter has made its case for the relational side of the mixed account, and will now turn to making the case for the non-relational side, by discussing the usefulness of this account for the relationship between current and future generations. Following this, the chapter will explain how the positions can be mixed.

The non-relational account arguably has an advantage in the case of the relationships between future and present generations, because for non-relational accounts, future generations are morally as important as those living today, by virtue of their humanity.⁶¹ Non-relational accounts, as explained above, do not take global relationships as a starting point, but instead focus on a feature of humanity, such as human rights, which all humans, including future humans, have in common. In this sense, both egalitarian and sufficientarian non-relational accounts would include future persons in the scope of distributive justice, by virtue of their humanity. This implies that a non-relational account must seriously consider what exactly present generations owe to future generations and why. A non-relational account would have to address which rights are threatened, and

⁶¹ Caney, S., 'Human Rights, Climate Change, and Discounting' in *Environmental Politics*, 17 (2008), p. 540

what this implies in terms of how much action should be taken. The thesis will discuss both of these questions in Chapters Four and Five, for now the chapter merely serves to point out that a non-relational account must address how much is owed to future generations.

A relational account may be less able to address the question of how much is owed to future generations. Relational scholars focus on existing global relationships to set the scope of justice and discuss what is required for distributive justice. It is therefore arguably difficult for relational scholars to claim that present generations have duties of justice towards future generations, since future generations are not part of existing global relationships, as they are not alive and participating in these relationships. A relational account depends on the context of existing global relationships in order to set the scope of justice and define demands of justice. For this reason, relational scholars may not only exclude future generations from the scope of justice, but also may be unable to define demands of justice which apply to future generations. This is because it is unclear what the conditions of a relationship with future generations are, as their concerns cannot be ascertained, because they do not yet exist. A relational account will therefore arguably have trouble defining content, or demands of justice in the case of future generations, because the context is unspecified.

This is problematic, because not fully factoring in the importance of future generations would fail to capture the realities of the climate change problem, since future generations represent the primary victims of climate change, as was explained in Chapter One. More detrimentally, if future generations are not included in the scope of justice, and no demands of distributive justice apply to them, this could potentially mute climate change action, because the urgency for action would be reduced. If future generations are not considered morally equal to present generations, then there is little reason to act on climate change until present generations are affected, which could be as long as fifty to a hundred years from today, as explained in Chapter One. This would intensify and worsen the effects on future generations as GHG emission continue to collect in the atmosphere, eventually causing irreversible damages, as was explained in Chapter One. Therefore, in the case of future generations, a non-relational context is critical in order to adequately address the realities of the climate change problem, specifically the reality that future generations will be the main victims of climate change. As can be seen above, the relational and non-relational accounts are able to address certain distributive questions raised by

relationships which stem out of climate change, and unable to answer others. For this reason, there is arguably an incentive to combine the approaches in the case of climate change. The chapter now turns to defining such a mixed approach.

Defining the Mixed Approach

The mixed approach will be defined as follows. The mixed approach is based, in the first instance, on a non-relational scope, and therefore entails certain basic immutable demands, such as not violating minimum human rights or ensuring an egalitarian distribution of benefits and burdens. However, the mixed approach goes beyond this, and applies, on top of the basic immutable demands, a relational scope in order to explore existing relationships and provide guidance for demands of justice based on these relationships. In other words, the non-relational side of the account defines a global scope and demands that a minimum threshold is met within this scope, and the relational side of the account helps to explicate a more detailed content, or further specific demands, of justice, based on the special relationships created by climate change. The relationships caused by climate change are in this way a constitutive part of the climate change justice position, which help to explicate demands of justice relevant to these relationships. This is relational in the sense that relationships give rise to demands of justice. It is important at this point to explain how this mixed account is different from both Simon Caney's egalitarian account, and David Miller's split level approach, because these accounts have some similarities with the mixed account defended here. Furthermore, explaining how the mixed approach differs from these two positions should further clarify the approach.

Under Caney's egalitarian non-relational approach, demands of justice arise from a non-relational conception justice, and how these demands are met is acknowledged to be affected by existing relationships. In the position defended here, the relationships which are unique to climate change are part and parcel of the climate justice position: these relationships give rise to demands rather than accommodating demands which have previously been defined by a non-relational position. This is the difference between a strictly non-relational and mixed account – in the mixed account demands of justice stem out of relationships as well as the non-relational scope, whereas in a strictly non-relational account demands of justice exclusively stem from the non-relational scope. Returning to the cake scenario, an egalitarian account would demand an egalitarian distribution of cake without further considering the relationship between the five individuals sharing the cake, and what distributive questions this relationship raises. Instead, the egalitarian account, as

defended by Caney, would state that the relationship of the individuals may have an effect on the distribution, but not that the relationship between the individuals gives rise to any demands specific to these relationships. The mixed approach, on the other hand, defends in the first instance, a non-relational minimum, such as the right to life, which would ensure that each individual sharing the cake is allocated enough calories to live. On top of this requirement, the mixed approach would then investigate the relationship between the five individuals, explore what distributive questions this relationship raises, and then explicate demands of justice in order to answer these distributive questions. In this way, the relationship between the individuals is part and parcel of the development of the demands of justice.

Leaving the cake scenario and returning to climate change, an egalitarian account, as defended by Caney, would demand that benefits and burdens must be shared in an egalitarian manner, but would not explore specific relationships, such as the relationship between developed and less developed countries in order to specify further specific demands. The mixed position, on the contrary, would set a moral minimum such as the right to life. On top of this, the mixed position could then explore special relationships, such as the relationship between developed and less developed countries, discuss the distributive justice questions raised by this relationship, and answer these by explicating demands of justice. In this way, the relationship between developed and less developed countries is explicitly explored as part of the justice position, and is relevant in terms of explicating demands of justice. The difference between Caney's approach and the mixed approach is important because, as argued above, relationships involved in climate change raise distributive justice questions which need to be addressed. If demands of justice are formed through a thorough examination of these relationships, then these distributive questions can be answered as part and parcel of the climate justice position. If, in contrast, demands of justice are set out in a non-relational manner, and specific relationships are not considered, then the distributive justice questions raised by these relationships will not be addressed adequately.

Now that the mixed approach has been distinguished from Caney's non-relational approach, the approach must be distinguished from a relational account defended by David Miller, which arguably shares some similarities with the approach defended here. Explaining the distinction between Miller's approach and the mixed approach defended

here also serves to answer some potential criticisms which are directed at relational accounts of cosmopolitan justice. As was explained in Chapter Two, Miller explicates a split level approach, where basic rights must be respected at the global level, which is a non-relational demand, but where more complex demands of justice are defined within states, which is relational position because states represent a specific relationship within which demands of justice are defined. Miller's approach is arguably a mixed approach which combines non-relational and relational elements. However, the mixed account presented here differs from Miller's account, because Miller is not consistent in his non-relational defense of basic rights at the global level. For example, Miller argues that according to his split level approach, a nation could offer international aid if it meant minimally reducing national education funding, but not if it meant that fellow nationals would starve.⁶² Here Miller is attempting to explain that relationships to fellow nationals can override non-relational human rights of those outside national borders. In his example, starving nationals would be prioritized over international aid which would help starving strangers abroad. In other words, the human rights of non-nationals can be overridden by the human rights of fellow nationals. In this way, Miller limits the non-relational demand of protecting basic rights in favor of the relational demands that exist within the state.

This is in stark contrast to what is being posited here. The non-relational element of the mixed approach defended here would ensure that non-relational demands of justice related to climate change can *under no circumstances* be violated. In the mixed account, the scope of justice is immutably non-relational, and the relational element of the mixed position merely helps to explicate more exact demands of justice, rather than *limiting* the non-relational scope of justice. The rationale behind not overriding the non-relational scope of justice can be found in the basis of cosmopolitan theory outlined in Chapter Two: the equal moral status of humans, regardless of their place or time of birth. This equal moral status of individuals implies that the non-relational scope of the mixed account defended here cannot be overridden. All humans, by virtue of their humanity, are included in the scope of justice, and cannot be taken out of the scope of justice because of a special relationship. The non-relational scope sets a moral minimum which must never be crossed. This ensures that the mixed approach is consistent as a cosmopolitan position. Miller's position, on the other hand, cannot be said to be consistent in this manner, his approach

⁶² Miller, D., 'Reasonable Partiality Towards Compatriots' in *Ethical Theory and Moral Practice*, 8 (2005), p. 74

seemingly allows the non-relational scope of justice to be overridden on a case by case basis.

In order to explain this further, the chapter will now briefly outline how the mixed position will be applied in Chapter Five. This is merely for the purpose of clarification, Chapter Five will go into much further detail. Chapter Five will make the case that the non-relational scope of justice in the mixed position gives rise to the demand that future generations must be treated as morally equal to present generations. As was explained above, a relational account could, on its own, make a case for discounting the rights of future generations because there is no existing relationship between future and present generations. However, since the non-relational account forms the basis of the mixed approach, and must be respected in all instances, the relational account is in this case not applied, because doing so would *limit* the demands of justice which apply to future generations. Relational demands can *never* override non-relational demands in the mixed approach defended here. To illustrate further, Chapter Five will use the relational element of the mixed position to explicate a demand of justice relevant to the relationship between developed and less developed countries and the distributive questions this relationship raises. This does not *limit* the non-relational demand that present and future generations must be treated equally. Instead, the relational side of the account is merely applied to answer distributive justice questions. In a case where the relational side of the account would *limit* the non-relational demands of justice, for example by muting the obligations to future generations, this is prevented because the non-relational side of the account must be respected as a priority.

Prioritization of the non-relational account is important not only for cosmopolitan consistency, but also in order to answer some common concerns associated with relational cosmopolitan accounts. The first concern is that the idea that morally arbitrary factors should not affect what people deserve under a cosmopolitan account. Simon Caney for example claims that 'it is difficult to see how and why the fact that one group of people is linked by interaction should impact on their entitlements.'⁶³ He goes on to say that one's life prospects or one's access to opportunities should not depend on 'morally arbitrary considerations' such as which associational scheme one is born into.⁶⁴ This is a valid criticism of the relational account, because if the scope of distributive justice is limited to

⁶³ Caney, S., *Justice Beyond Borders* (Oxford: Oxford University Press, 2005), p. 111

⁶⁴ *Ibid.*, p. 112

certain social schemes, then this will affect what people are entitled to. However, in the mixed position defended here, every human being, including future generations, is included in the scope of justice. Every human, present and future, is entitled to the same basic rights, as will be explained in Chapter Four. Furthermore, these rights can never be overridden, as was explained above. This is in line with the cosmopolitan perception of equal moral worth of individuals. In addition, the relational side of the account is not used in order to discuss morally arbitrary circumstances, but rather to discuss specific distributive justice questions which arise from the relationship between developed and less developed countries. Historical emissions levels and levels of current emissions and wealth are not morally arbitrary, because these factors impact on what is considered fair and just to the parties within an existing relationship, and these are moral considerations.

A second concern with the relational account is that individuals could fall outside the scope of justice if they are not part of the relationships chosen by relational scholars, or if they happen to leave these relationships at a later time. This is problematic because individuals who fall outside of the scope of justice would not be considered full moral equals of those within the relationship which is chosen by relational scholars. In this way, these individuals would not share the status of being a primary unit of moral concern and would not be considered to possess equal moral worth. This is not acceptable from a cosmopolitan perspective, which emphasizes the equal moral status of all individuals. The mixed approach defended here can arguably overcome this criticism. In the mixed approach, there is a non-relational minimum which can never be crossed, and which ensures that no individual is excluded from the scope of distributive justice. Moreover, this non-relational minimum implies that individuals are the primary unit of moral concern and possess equal moral worth, which is reflected in their equal rights, as will be explained in Chapter Four. Those individuals who participate in the relationship of developed and less developed countries are entitled to the same basic rights as every individual, and are not entitled to additional rights. Instead, those participating in the relationship may be responsible for lowering emissions or they may be owed help with fighting climate change, depending on the circumstance. This does not afford these individuals any additional privileges, but rather responds to the questions of distributive justice which exist in the case of climate change, and which must be answered.

Now that the mixed account has been defined, it should be noted that an argument made by Arash Abizadeh may help to clarify why mixing the accounts is indeed a possibility.

Abizadeh suggests that the scope of justice and the site (content) of justice should not be conflated, and the content of justice can be used as a constitutive condition to realizing justice.⁶⁵ His argument is quite complex, and concerns illustrating that the context of justice does not necessarily limit the scope of justice. Importantly for the argument here, his logic implies that justice does not need to be based in existing relationships in the first instance in order to use existing relationships to clarify demands of justice, because the context and content of justice are not necessarily fixed to one another. Therefore, proposing a scope of justice which is in the first instance non-relational and results in a content which prescribes certain immutable demands, and in the second instance uses a relational scope of justice to explore the realities global relationships and to define demands based on these relationships seems feasible. It is worthwhile to note that Abizadeh does not take a position on relational vs. non-relational justice. He 'is not trying to settle an argument, but explain the field'.⁶⁶ Therefore, although this chapter refers to his work, it goes a step further in order to explain how the 'argument' between relational and non-relational justice scholars might be settled in the specific case of climate change. Finally, it is worth stressing that there has so far been no explicit attempt to mix non-relational and relational justice in the climate change justice literature. As a result, there may be some skepticism as to whether this mixed approach is defensible. Chapter Five of this thesis will apply the mixed approach in order to define three demands of justice. There, the case for a mixed approach will be strengthened by illustrating how it can be used to develop these demands and this will hopefully convince sceptics of the plausibility and usefulness of the mixed approach.

Conclusion

This chapter began with a brief note on scientific uncertainty and how it relates to the cosmopolitan position. Following this, the chapter advanced the first tenet of the climate justice position defended in this thesis: the scope of justice. This involved a discussion of the merits of a non-relational vs. relational approach to global justice, and a defense of a mixed approach in the special case of climate change. This mixed approach includes a non-relational scope which sets a minimum threshold of justice which must be met under all circumstances, and a relational scope which can be used to explicate demands of justice in order to answer the distributive questions raised by relationships which exist as a result of the climate change problem. The chapter has argued that the mixed approach provides a

⁶⁵ Abizadeh, A., 'Cooperation, Pervasive Impact, and Coercion: On the Scope (not Site) of Distributive Justice' in *Philosophy and Public Affairs* 35 (2007), p. 358

⁶⁶ *Ibid.*, p. 339

comprehensive approach to climate change, which fully captures the realities of the climate change problem. The subsequent chapter, Chapter Four, will advance the second tenet of the climate justice position by explaining what climate justice will be grounded in.

Chapter Four – The Grounds of Climate Justice

Introduction

This chapter is the second of chapter of Part II of the thesis ‘Developing a Global Justice and Climate Change Position,’ which concerns defining the scope of climate justice, the grounds of climate justice, and what climate justice demands. The previous chapter made the case for a scope of justice that is both relational and non-relational. This current chapter aims to explicate what exactly grounds the conditions of justice in the case of climate change. The importance of defining the grounds of justice lies in the mixed approach defended in the previous chapter. As was explained in Chapter Three, the thesis is based, in the first instance, on a non-relational account of justice. The non-relational side of the account serves to set a minimum moral threshold which applies to all individuals no matter the time or place of birth, and which cannot be crossed. For this reason, the thesis must now define a minimal moral threshold, which will constitute the grounds of climate justice. The current chapter and previous chapter serve to lay the foundation for Chapter Five, which will make use of the scope and grounds of climate justice developed in these two chapters to define what climate justice demands.

The current chapter will make the case for a non-relational moral minimum, namely the human right to health, which will serve as the grounds of climate justice. The chapter will be organized as follows. First, the chapter will defend the use of a human rights approach. Next, the chapter will explain that human rights will be defined as protecting human interests. Following this, key existing cosmopolitan human rights positions in the case of climate change will be examined in order to assess whether any right, or set of rights, are best suited for the grounds of climate justice. It will be argued that negative rights, substantive rights, and existing rights are particularly useful for the climate justice position defended in this thesis. It will then be put forward that the right to health arguably encompasses the basic human interests threatened by climate change, and is therefore sufficient to ground the climate justice position. Finally, the chapter will provide a definition of the right to health, which is particular to the climate change problem, and begin to explain what action is necessary in order to protect this right. The chapter will conclude with a summary of the points defended.

Human Rights as a Grounds for Climate Justice

This thesis makes use of a human rights approach to define the minimum moral threshold that cannot be crossed, referred to here as the grounds of justice, for three reasons. First, and most importantly, a human rights based approach has been chosen because this

enables the thesis to engage with one of the empirical realities of the climate change problem outlined in Chapter One, namely the fact that climate change threatens several human interests. As will be explained below, human rights can be used to represent basic human interests, including those threatened by climate change. Defending a specific human right as the moral threshold which grounds climate justice therefore requires an analysis of which human interests are threatened by climate change. This is important, because Chapter Two argued that a normative assessment of climate change should address which human interests are threatened by climate change, because this issue is part and parcel of the climate change problem. Second, the thesis is in this chapter defining a minimal non-relational moral threshold that cannot be crossed. Human rights, in political philosophy, commonly represent moral thresholds below which people should not fall. They designate the most basic moral standards to which persons are entitled, and specify the line beneath no one is allowed to sink.¹ Thirdly and relatedly, a human rights based approach is becoming more common within climate justice literature, as will be illustrated below. Since human rights are commonly used to represent a moral threshold that cannot be crossed, especially within cosmopolitan climate change literature, using such an approach ensures that the climate justice position taken in this thesis speaks to existing literature. The thesis aims to contribute to existing climate justice literature, which is why it is important to draw on and refer to an approach which exists within the literature. Now that the reasons behind using a human rights approach have been explained, the chapter turns to explaining how human rights will be defined. In order to explain this, the notion of basic interests must first be clarified.

Basic Interests

Basic interests are not subjective, but rather objective interests, which are not subject to bias from the individual. This is important because individuals can be wrong about what their interests are and why having them fulfilled will make them better off. For example, individuals may believe that being rich will make them happy, and therefore assume that they have an interest in earning money. However, basic interests, as defined in this thesis, are different. This is because the thesis assumes that basic interests are not linked to a conception of 'good.' A conception of 'good' which is universal is impossible to define, as every individual will have their own ideas of 'good,' derived from their history, education, ethnicity, gender, and other factors which determine our sense of what is 'best' for us.

¹ Caney, S., 'Climate Change, Human Rights, and Moral Thresholds' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 164

Instead of being linked to a conception of ‘good,’ interests are here limited to a small number of basic interests which are so minimal, yet fundamental to the human experience, that they can be argued to apply to all individuals. To put it simply, these are interests which are considered necessary to lead a minimally decent life. This implies that it would be impossible to imagine how any individual could lead a minimally decent life without having these basic interests met. A minimally decent life is here defined as one which is not consumed with the struggle to stay alive. A thriving human life does not seem possible if all energy is expended on trying to survive, with no room for any other human pursuits. This definition of minimally decent is in line with Martha Nussbaum’s well known definition of a minimally decent life, which she defines as living a life that is fully human rather than subhuman, a life worthy of the dignity of the human being.² Nussbaum argues that a fully human life requires adequate nutrition, education of the faculties, protection of bodily integrity, liberty for speech and religious self-expression, among other pursuits.³ This reflects the idea that a minimally decent life requires human pursuits, such as education or religious expression, which lie outside of the struggle to survive. In order to clarify this conception of basic interests, a basic interest that is related to the climate change problem will be discussed below.

Climate Change and the Basic Interest in Health

The basic interest in health will be used as an example here because this interest is threatened by the effects of climate change. Furthermore, as will be argued later in the chapter, the basic interest in health is particularly important to the climate change problem, because other basic interests threatened by climate change are arguably encompassed within the basic interest in health. For now, the chapter merely aims to illustrate why the basic interest in health can be said to be threatened by climate change, in order to clarify the conception of basic interests outlined above. The Intergovernmental Panel on Climate Change (IPCC) outlines six key future risks related to climate change in its latest report: food security, health, extinction of species, water shortages, economic costs, and displacement.⁴ Prioritizing health as one of the six key risks is indicative of the fact that the interest in health will be threatened by climate change. The IPCC explains that climate change will, until 2050, impact human health mainly by exacerbating health problems that

² Nussbaum, M., ‘Beyond the Social Contract’ in *Oxford Development Studies* 32 (2004), p. 13

³ *Ibid.*

⁴ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 10

already exist.⁵ Furthermore, throughout the 21st century, climate change is expected to lead to increases in ill-health in many regions and especially in developing countries with low income.⁶ In urban areas, climate change is projected to increase risks for people, assets, economies and ecosystems, including risks from heat stress, storms and extreme precipitation, inland and coastal flooding, landslides, air pollution, drought, water scarcity, sea-level rise, and storm surges.⁷ In addition to this, climate change is predicted to lead to an increase in diseases such as malaria, diarrheal diseases, infectious disease such as HIV and AIDS as well as an increase in serious cardio-respiratory problems, all of which are life threatening diseases.⁸ Two of these conditions, malaria and diarrheal disease, will be examined in detail below, in order to explain how climate change exacerbates these diseases and furthermore how these diseases threaten the basic interest in health.

Malaria is predicted to worsen due to climate change because malaria epidemics are associated with changes in environmental or social conditions, such as heavy rains following drought bringing more mosquitos, or migration of immigrants and refugees who are infected.⁹ Chapter One explained that climate change will cause flooding and increased precipitation. In addition, according to the IPCC, the adverse weather associated with climate change is projected to increase displacement of peoples across the world as areas become increasingly uninhabitable, leading to increases in migration and refugees.¹⁰ It is therefore likely that climate change will result in higher rates of malarial infection, since climate change brings about the environmental and social conditions associated with malaria epidemics. Furthermore, diarrheal diseases are expected to worsen as a result of climate change because these diseases are exacerbated by poor housing, crowding, dirt floors, lack of access to sufficient clean water or to sanitary disposal of fecal waste, and a lack of refrigerated storage for food.¹¹ Lack of clean water is expected to be intensified by climate change due to flooding and droughts, as discussed in Chapter One. In addition, forced migration and relocation as a result of flooding or other adverse weather associated

⁵ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 11

⁶ *Ibid.*

⁷ *Ibid.*

⁸ Caney, S., 'Climate Change, Human Rights, and Moral Thresholds' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 167

⁹ Jamison D.T., Breman J.G., Measham A.R., et al., *Disease Control Priorities in Developing Countries* (Washington D.C.: World Bank, 2006), p. 414

¹⁰ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 11

¹¹ Jamison D.T., Breman J.G., Measham A.R., et al., *Disease Control Priorities in Developing Countries* (Washington D.C.: World Bank, 2006), p. 373

with climate change is predicted to increase the number of migrants and refugees living in the inadequate conditions described above, which have the potential to exacerbate diarrheal disease. On top of this, climate change will damage crops, and lead to water shortages, restricting the ability to provide nutritionally balanced diets to mitigate and repair liquid and nutrient losses when diarrhea develops, potentially increasing the morbidity rate of diarrhea.¹²

Basic interests have here been defined as being integral to an individual leading a minimally decent life which is not consumed with the struggle to stay alive. An individual who is ill with malaria and diarrheal disease will struggle to survive, and therefore not have a chance at a decent life, as all of their energy will be spent on survival, dealing with painful and persistent effects of their illness, and leaving them unable to pursue other activities outside of this. To illustrate this point, what follows are medical descriptions of the symptoms of diarrheal disease and malaria. Malaria has several different strands, and the symptoms associated with malaria range widely. One symptom is hypoglycemia, which causes weakness, sweating, dizziness, blurred vision, confusion and can result in comas.¹³ Malaria also causes severe anemia, which includes symptoms such as weakness, shortness of breath, heart palpitations, bone deformities, leg ulcers, and eventually heart failure.¹⁴ In addition, cerebral forms of malaria can cause acute respiratory arrest, seizures, and loss of consciousness.¹⁵ Even when malaria is overcome, it can leave lasting impacts in the form of residual neurological deficit, for example weakness on one side of the body, muscle spasms, stiffening of muscles, or residual pain in limbs.¹⁶ The World Health Organization ranks malaria as the eighth-highest contributor to the global disease burden and the second highest in Africa, illustrating its severity as a health issue.¹⁷

Diarrheal disease is caused by infectious organisms, including viruses, bacteria, protozoa, and helminthes, which are transmitted from the stool of one individual to the mouth of another, for example through dirty water as a result of inadequate sanitation, or through objects such as cups or plates due to a lack of hygienic practices.¹⁸ Three major diarrhea syndromes exist: acute watery diarrhea, persistent diarrhea, which lasts fourteen days or

¹² Jamison D.T., Breman J.G., Measham A.R., et al., *Disease Control Priorities in Developing Countries* (Washington D.C.: World Bank, 2006), p. 373

¹³ *Ibid.*, p. 413

¹⁴ *Ibid.*

¹⁵ *Ibid.*, p. 414

¹⁶ *Ibid.*

¹⁷ *Ibid.*, p. 415

¹⁸ *Ibid.*, p. 371

longer, and bloody diarrhea, which is a sign of the intestinal damage caused by inflammation.¹⁹ Acute watery diarrhea can be rapidly dehydrating, with stool losses of 250 milliliters per kilogram per day or more, a quantity that quickly exceeds total plasma and interstitial fluid volumes and is incompatible with life unless fluid therapy can keep up with losses.²⁰ Persistent diarrhea is typically associated with malnutrition, which leads to weakness, lack of energy, chronic pain, loss of consciousness, and is associated with a disproportionately increased risk of death.²¹ Bloody diarrhea, defined as diarrhea with visible or microscopic blood in the stool, is associated with intestinal damage and nutritional deterioration, and often with secondary sepsis which causes high fever, rapid breathing, confusion, organ failure, and death.²² The symptoms associated with any of these types of diarrhea rapidly become life threatening if they are not reversed through nutrition or water replacement, and therefore diarrheal diseases remain a leading cause of preventable death, especially among children under five.²³

The symptoms of malaria and diarrhea outlined above arguably make it difficult to imagine an individual with malaria or diarrhea leading a minimally decent life. The symptoms of both diseases are likely to disrupt normal day to day activities, and energy will be expended on trying to survive, with no room for other human pursuits which would be expected under any reasonable understanding of a minimally decent life – for example the pursuit of education, or enjoying family life. This implies that by the definition of this thesis, an interest in health, in cases where diseases significantly impair life and reduce it to a struggle for survival, can be defined as a basic interest. Now that the concept of basic interests has been illustrated through an example, it will be explained below how basic interests, such as the basic interest in health, can be used to define human rights.

Basic Interests and Human Rights

A common line of argument in political philosophy is that if individuals have basic interests, then these can be used to articulate human rights.²⁴ Human rights, according to this line of thinking, are not self-evident truths, fundamental to morality, but instead require justification from a more basic moral assessment of interests, an assessment to see if these

¹⁹ Jamison D.T., Breman J.G., Measham A.R., et al., *Disease Control Priorities in Developing Countries* (Washington D.C.: World Bank, 2006), p. 372

²⁰ *Ibid.*

²¹ *Ibid.*

²² *Ibid.*

²³ *Ibid.*, p. 371

²⁴ Cochrane, A., 'From Human Rights to Sentient Rights' in *Critical Review of International Social and Political Philosophy* 1 (2012), p. 3

interests are sufficient to ground duties on the part of others.²⁵ According to this argument, if basic interests are fundamentally important, or sufficient enough to protect, then they can reasonably be thought to impose duties on others to respect and promote those interests.²⁶ Furthermore, if there is a duty to protect an interest, then this logically means there is a corresponding right to that interest, which is usually referred to as a human right.²⁷ According to this conception of rights as interests, human rights are not considered 'natural,' but rather serve the purpose of highlighting the importance of the basic interests that they serve to protect. In summary, according to this common argument, human rights are defined as human interests. As this is a common argument to make, the thesis will apply the logic of the rights as interests argument and define human rights as representative of human basic interests.²⁸

Now that the connection between basic interests as human rights has been explained the chapter will explore some existing accounts of global justice and climate change to ascertain which human rights have previously been defended by climate justice scholars, and whether any specific right or set of rights is especially suited for grounding the climate justice position defended in this thesis. This exploration of human rights should be viewed as an exploration of which basic interests are threatened by climate change, because human rights have been defined to be representative of basic human interests in this thesis.

Existing Climate Justice Accounts

The chapter will now outline and assess some existing cosmopolitan positions which explicate specific human rights related to climate change, put forward by Patrick Hayden, Tim Hayward, and Simon Caney. The chapter will then will explore whether any particular right or group of rights defended above are more or less useful for a grounds of climate justice. The first example of a climate justice account which outlines human rights is put forward by Patrick Hayden, who defines specific environmental human rights.²⁹ Hayden's conception of rights encompasses both substantive and procedural rights. His substantive rights include the right to be protected from environmental harm, which encompasses the

²⁵ Cochrane, A., 'From Human Rights to Sentient Rights' in *Critical Review of International Social and Political Philosophy* 1 (2012), p. 5

²⁶ Raz, J., 'Liberating Duties' in *Law and Philosophy* 8 (1989), p. 6

²⁷ Feinberg, J., 'The Nature and Value of Rights' in *The Journal of Value Enquiry* (1969), p. 249

²⁸ The thesis could have used duties, not rights, to represent basic interests, because duties serve to protect human interests, just as rights do. However, according to an extensive review of the literature, cosmopolitan climate justice scholars usually refer to human rights, not duties. This thesis develops a climate justice account with the aim of including and acknowledging existing cosmopolitan thought, in order to speak to cosmopolitan literature and fall within this literature. For this reason, the thesis follows the emerging trend of defending human rights, rather than duties.

²⁹ Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 361

right to clean air and water.³⁰ Hayden's procedural rights serve to enhance and protect the ability to claim substantive rights and include the right to be fully informed about the potential effects of environmental hazards, the right to participate in democratic procedures for policy making and decision making concerning such hazards, the right to consent to policies and decisions reached, and the right to complain about existing conditions, standards, and policies.³¹ Similarly, Tim Hayward defines a right specific to the climate change problem, namely the human right to ecological space. This is defined as a human right to live in an environment free of harmful pollution.³² Hayward qualifies this right by grounding it in the right to secure access to the means of a decent life.³³ He explains that an equitable distribution of rights to ecological space would in principle ensure an equitable distribution of welfare goods without sanctioning any excess use of natural or environmental services, including the planet's capacity for absorbing carbon.³⁴ According to Hayward, this should ensure the right of each individual to an environment adequate for their health and well-being.³⁵

Finally, Simon Caney bases his conception of justice in three key human rights, defined as human interests which are threatened by climate change: the human right to life, the human right to health, and the human right to subsistence.³⁶ His conception of human rights is negative, which means that there is no positive duty to protect the right to life, but a negative duty to refrain from activities which threaten the right to life, sustenance, and health of others.³⁷ According to Caney, climate change is predicted to threaten the right to life, health and sustenance in a number of ways: climate change will lead to drought and thereby undermine food and water security; second, sea level rises will involve loss of land to the sea and thus negatively affect agriculture; third, flooding will lead to crop failure; and fourth, unusual weather events will destroy agriculture and increase global diseases.³⁸

Hayden's use of both substantive and procedural rights is no doubt interesting and insightful. However, the thesis will not make use of procedural rights. The justification

³⁰ Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 361

³¹ *Ibid.*, p. 362

³² Hayward, T., 'Human Rights Versus Emission Rights: Climate Justice and the Equitable Distribution of Ecological Space' in *Ethics and International Affairs*, 21 (2007), p. 432

³³ *Ibid.*

³⁴ *Ibid.*, p. 433

³⁵ *Ibid.*, p. 440

³⁶ Caney, S., 'Climate Change, Human Rights, and Moral Thresholds' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 166

³⁷ *Ibid.*

³⁸ *Ibid.*, p. 168

behind this decision is that, although it could be argued that individuals have an interest in being included in decisions that affect their lives, and that they have an interest in complaining about or consenting to new policies,³⁹ this interest cannot be considered to be a basic interest under the definition defended above. Voting, deliberation, participation and complaints procedures are arguably in the interest of individuals affected by climate change because these procedures ensure that individuals can be involved in decisions that affect their lives. However, procedural rights are arguably not representative of basic interests, for several reasons. For one, it is theoretically possible to have basic interests met without any democratic participation, for example if there were a benevolent leader who ensures all basic interests are met. This indicates that procedural rights are not representative of basic interests, because being involved in decision making is not essential to ensuring basic interests are met in all instances. Secondly, basic interests seem to logically precede procedural rights. Democratic participation will not be possible if an individual is living a life concerned solely with survival, and unable to pursue other interests. Instead, procedural rights are acted on by individuals who are capable of political participation because their basic rights have already been met. Finally, basic rights, which serve to protect basic interests, are traditionally defined as basic only if enjoyment of them is essential to the enjoyment of all other rights.⁴⁰ Procedural rights do not seem basic enough to be essential to the enjoyment of all other rights. In contrast, procedural rights seem to depend on basic rights being met, so that an individual's life is not consumed solely by the struggle to survive, and they are capable of pursuing procedural rights. For the reasons above, procedural rights are arguably not representative of basic interests. This thesis bases its human rights account on basic interests, and therefore cannot make use of a notion of procedural rights. Therefore, the thesis will only make use of substantive rights. Which substantive rights will be used will be explained below, by discussing the advantages of existing rights over rights unique to the climate change problems.

It is arguable that existing human rights, which have previously been accepted as human rights at the international level, may be more useful than rights unique to the climate change problem. For example, the right to life, defended by Caney, can be found in Article Three of the Universal Declaration of Human Rights, which states that 'everyone has the

³⁹ Young, I. M., 'Communication and the Other: Beyond Deliberative Democracy' in Benhabib, S. (eds) *Democracy and Difference* (Princeton: Princeton University Press, 1996), p. 122

⁴⁰ Lichtenberg, J., 'Are There Any Basic Rights?' in *Global Basic Rights*, eds. Beitz, C. and Goodin, R. (Oxford: Oxford University Press, 2009), p. 72

right to life, liberty and security of person.⁴¹ Similarly, the right to health and sustenance, also defended by Caney, can be found in Article Twenty Five, which states that ‘everyone has the right to a standard of living adequate for the health and well-being of himself ... including food.’⁴² Although the Declaration of Human Rights is not a legal document, it is a well-known and well-referenced list of human rights. Furthermore, it can be argued that today there is no question that human rights enshrined in the Universal Declaration have attained the status of a *lingua franca* of global moral discourse.⁴³ Hayden and Hayward, unlike Caney, create original rights tailored specifically to climate change, which could arguably be more difficult to integrate into global moral discourse. Furthermore, it may be difficult to convince policy makers to change their practices based on the creation of new and unfamiliar rights. It might therefore be more useful to ground justice in rights which exist in an internationally recognized document and form part of moral discourse. If the grounding for justice is already a part of existing understandings of human rights, the approach defended here would be more consistent with existing normative discourse. Therefore, it seems that the right to life, health, and sustenance may be more useful than a right to an environment free from harmful pollution as defined by Hayward, or a right to be protected from environmental harm, as defined by Hayden.

It should be noted that there have been attempts to define a comprehensive list of climate change related rights, for example in the 1994 Draft Declaration of Principles on Human Rights and Environment, which was written by a panel of experts and presented to the United Nations.⁴⁴ This suggests that rights unique to the climate change problem may become part of the normative discourse over time. However, it is important to point out that the above declaration focuses on the environmental dimension of established human rights, such as the rights to life and health.⁴⁵ This raises questions about the value of unique climate change related rights. Although climate change rights can be argued to reflect basic interests, because the right to a clean environment protects the conditions which are necessary for the enjoyment of basic interests,⁴⁶ it is questionable whether separate

⁴¹ United Nations, ‘The Universal Declaration of Human Rights’ <http://www.un.org/en/documents/udhr/> [accessed 15.01.2015]

⁴² *Ibid.*

⁴³ Beitz, C. and Goodin, R., ‘Basic Rights and Beyond’ in *Global Basic Rights*, eds. Beitz, C. and Goodin, R. (Oxford: Oxford University Press, 2009), p. 1

⁴⁴ Hayden, P., *The Philosophy of Human Rights* (St. Paul: Paragon House, 2001), p. 670

⁴⁵ *Ibid.*

⁴⁶ Beitz, C. and Goodin, R., ‘Basic Rights and Beyond’ in *Global Basic Rights*, eds. Beitz, C. and Goodin, R. (Oxford: Oxford University Press, 2009), p. 20

environmental rights add meaningfully to the rights discourse when these mainly serve to protect previously agreed upon rights.

Defining a right specific to the climate change problem seems to be an unnecessary in-between step, when it may be more useful to directly address the existing human rights threatened by climate change. For example, Hayward's conception of human right to ecological space seeks to ensure the right of each individual to an environment adequate for their health and well-being.⁴⁷ Interestingly, the United Nations defines the right to health as 'a right to standard of living adequate for health and well-being.'⁴⁸ This seems to indicate that Hayden's right to ecological space directly encompasses the right to health as defined by the United Nations. Furthermore, Hayden's account of the right to be protected from environmental harm encompasses the existing right to clean air and water; he lists these as specific substantive rights that should be protected under the right to be protected from environmental harm.⁴⁹ This indicates that rights unique to the climate change problem merely serve to encompass existing rights, which may overcomplicate the rights discourse. Charles Beitz and Robert Goodin argue that if a large number of rights purport to reflect the same basic interests, there will be confusion as to which right trumps another.⁵⁰ It may therefore be beneficial to have a small number of key basic rights, rather than a high number of competing rights that overlap and encompass one another. For all of these reasons, it seems that it may be more useful to argue for the protection of previously internationally recognized basic rights, rather than defining new rights which incorporate these existing rights under a different name.

Following a similar logic, it may also be more useful to conceptualize the human rights used to ground climate justice as negative rights rather than positive rights. Caney claims that in this way, the rights are less contentious, as the duties they prescribe are less stringent than if the rights were positive.⁵¹ The positive duty to protect a right to water, for example, would mean ensuring that an individual receives water, whereas a negative duty would mean that one should refrain from preventing water being restricted. Similar to using rights

⁴⁷ Hayward, T., 'Human Rights Versus Emission Rights: Climate Justice and the Equitable Distribution of Ecological Space' in *Ethics and International Affairs*, 21 (2007), p. 440

⁴⁸ United Nations, 'The Universal Declaration of Human Rights' <http://www.un.org/en/documents/udhr/> [accessed 15.01.2015]

⁴⁹ Hayden, P., 'The Environment, Global Justice and World Environmental Citizenship', in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), p. 361

⁵⁰ Beitz, C. and Goodin, R., 'Basic Rights and Beyond' in *Global Basic Rights*, eds. Beitz, C. and Goodin, R. (Oxford: Oxford University Press, 2009), p. 23

⁵¹ Caney, S., 'Climate Change, Human Rights, and Moral Thresholds' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 166

which already exist in the Declaration of Human Rights, using negative rights may be more easily integrated into climate change policy, as they are not as stringent as positive rights. That said, although they are not as stringent, negative rights are still stringent enough to require action in the case of climate change. For example, because climate change is predicted to create droughts, in order to fulfill the negative right to water, emissions would have to be reduced to prevent these droughts from occurring. However, although reducing emissions requires action from policy makers, these actions can be tied into existing policies on reducing emissions, which are put in place for a number of reasons, including self-interested reasons. For example, heads of state may want to appear progressive, they may want to ensure their own future survival, and they may even want to spur on technological advances which can later be sold off to other countries for profit. Fulfilling a negative right to water by reducing emissions fits more easily and seamlessly into existing policy than the positive duty to supply everyone in a certain country with a minimum amount of water a day, which would involve exporting funds, materials, or even people. Therefore, Caney's approach has something valuable to add.

Nevertheless, it must be noted that even though negative rights may be more easily integrated into existing climate change policy, in reality a cosmopolitan account of climate justice will require very stringent positive action. Caney makes it seem as if fulfilling negative duties will not be too difficult, but those who defend the cosmopolitan position, which includes this thesis, must be aware that it will not be a simple or easy process. This will be further discussed in Chapter Five, which will outline three demands of justice that must be met to reach a condition of justice in the case of climate change. Branding rights as negative may make them sound more palatable to policy makers, but cosmopolitans must remain aware of, and more importantly not deny, the fact that creating a condition of justice in the case of climate change will require difficult and stringent positive action.

A Right to Health as Grounds for Justice

Now that it has been discussed that existing substantive human rights which are negative are most useful for grounding justice, the chapter will turn to explaining that one specific right, namely the right to health, is sufficient to serve as a grounds to climate justice. It will be argued that Caney's three human rights related to climate change, the right to health, sustenance, and life, can be encompassed under the right to health. Caney's three rights will be used here because they represent an accurate depiction of the key basic interests which are threatened by climate change, according to the best available scientific evidence. As was explained above, the IPCC identifies six key future risks to related to climate change

impacts: food security, health, extinction of species, water shortages, economic costs, and displacement.⁵² These future risks threaten the right to health, life, and sustenance.

Lack of *food security* and *water shortages* threaten the human interest in sustenance (food and water) and the human interest in life, because lack of sustenance results in death if the lack is sufficient enough. Furthermore, the risk of *health* and *displacement* are indicative of the threat to the human interest in health, particularly because displacement results in conditions which threaten the interest in health, as was explained earlier in the chapter. In addition, *economic costs* are projected to slow down economic growth, make poverty reduction more difficult, further erode food security, and prolong existing and create new poverty traps, the latter particularly in urban areas and emerging hotspots of hunger.⁵³ These effects will threaten the human interest in sustenance and health by reducing individuals to poverty or keeping them there, and by eroding food security, which may also threaten the human interest in life. Finally, *extinction of species* is not directly related to basic human interests because extinction of species does not result in human lives being consumed with the struggle to survive, unless extinction becomes so widespread that it begins to threaten ecosystems, or results in food and water shortages, and threaten the interest in sustenance.

In sum, the three human rights defended by Caney arguably encompass the six main risks identified by the IPCC, and can therefore be seen as representative of the key human interests currently projected to be threatened according to climate change scientists. Caney himself refers to the rights he defends as ‘key.’⁵⁴ For these reasons, the thesis will consider Caney’s three basic rights to life, sustenance, and health as representative of the key basic human interests threatened by climate change. This is not to say that there are no other human interests which are threatened by climate change. Caney himself admits that there could be other rights threatened by climate change, such as the human right to development, or the human right not to be forcibly evicted, but he does not consider such rights as ‘fundamental’ in the same sense as the three rights he defends.⁵⁵ In the same vein, the thesis does not claim that the right to health, sustenance, and life are all encompassing of every human interest threatened by climate change, but rather that these three rights represented key basic interests threatened by climate change.

⁵² Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 10

⁵³ *Ibid.*

⁵⁴ Caney, S., ‘Climate Change, Human Rights, and Moral Thresholds’ in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 166

⁵⁵ *Ibid.*, p. 168

Although Caney's three rights are useful in the sense that they represent key basic interests threatened by climate change, these three rights could arguably be encompassed by one right: the human right to health. The right to sustenance, for example, is a broader way of expressing the right to food and water, which is arguably implicit in the right to health. The Universal Declaration of Human Rights states that everyone has a right 'to a standard of living adequate for health and well-being for himself and his family, including food.'⁵⁶ This seems to imply that food, or sustenance as Caney refers to it, is a necessary condition to the right to health. It is also well known that inadequate nutrition or hydration leads to ill health, and therefore, it seems that the right to food and water can be considered as implicit in the right to health. Furthermore, the right to life also seems implicit to the right to health, as inadequate health results in a loss of life. Defending the right to life therefore seems unnecessary, because staying alive requires adequate health. In addition, most predicted causes of death of climate change could arguably be related to health. Not having enough food and water aside, overheating or succumbing to diseases due to changing weather patterns or inadequate housing conditions cause health problems which eventually lead to death if not treated. It seems that the right to health encompasses the basic interests threatened by climate change - the basic interest in food, water, and life, all of which are required to live a life which is not consumed with the struggle to survive.

Furthermore, the right to health is not only one of the key risks identified by the IPCC, but also seen as key by scholars who study climate change. For example, James Hansen et al. argue that impacts of climate change will cause widespread harm to human health. These scholars explain that food shortage, polluted air, contaminated or scarce supplies of water, an expanding area of vectors causing infectious diseases, and more intensely allergenic plants are among the harmful impacts which will threaten health.⁵⁷ For this reason, Hansen et al. prioritize the risk to health in their discussion of what should be done to protect young people from climate change. Interestingly, Hansen et al. incorporate the threat to food and water under the threat to health, by explaining that climate change will cause food shortage and contaminated or scarce supplies of water, which will threaten health. This is in line with what is being argued here: that the right to health can encompass the right to sustenance. In sum, the prioritization of the right to health in this thesis is based on the idea that the right to sustenance and life can be encompassed by the right to health,

⁵⁶ United Nations, 'The Universal Declaration of Human Rights' <http://www.un.org/en/documents/udhr/> [accessed 15.01.2015]

⁵⁷ Hansen, J., et al. 'Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature' in *Plos One*, 8 (2013), p. 8

and also on the premise that the right to health is one of the key rights threatened by climate change and represents the key basic interests which are threatened. For these reasons, the right to health will be used as a ground for climate justice in this thesis. This is not to say that there are no other human rights threatened by climate change, or that the right to health definitively represents the most important right, but rather than the right to health is appropriate as a grounds of justice in the case of climate change.

Now that the reasons behind using the right to health have been outlined, the chapter turns to providing an overview of previous conceptions of the right to health, in order to develop a definition of the right to health which can be used to ground climate justice in this thesis. As was argued above, rights that are part of existing global normative discourse are particularly useful for a conception of climate justice. It is therefore important to assert that the right to health has been explicated in internationally recognized documents. As can be seen above, the right to health has been enshrined in the Universal Declaration of Human Rights. It has also been defined by the World Health Organization as a fundamental right, and has been unanimously endorsed by its member states.⁵⁸ Furthermore, the right to health is affirmed in several regional conventions, including the 1948 American Declaration of the Rights and Duties of Man, the 1981 African Charter on Human and Peoples' Rights, and the 2000 Charter of Fundamental Rights of the European Union.⁵⁹ Recently, scholars have gone so far as to claim that the human right to health has surged onto the international stage as one of the most pressing human rights of the twenty-first century.⁶⁰ Therefore, it can be said that a right to health is well established in global normative discourses.

The most basic conception of a right to health in current normative discourse is provided in the Universal Declaration of Human Rights, and defines the right to health as 'the right to standard of living adequate for health and well-being.'⁶¹ The right to health is not always conceptualized in this minimal way. An example of a more stringent conception of a right to health is the one defended by the International Covenant on Economic, Social, and Cultural Rights, which defines the right to health as the 'right of everyone to the enjoyment

⁵⁸ Davies, S., *Global Politics of Health* (Cambridge: Polity Press, 2010), p. 63

⁵⁹ Hayden, P., 'The Human Right to Health and the Struggle for Recognition' in *Review of international Studies* 38 (2012), p. 571

⁶⁰ *Ibid.*

⁶¹ United Nations, 'The Universal Declaration of Human Rights' <http://www.un.org/en/documents/udhr/> [accessed 15.01.2015]

of the highest attainable standard of physical and mental health.⁶² In this way, the right to health is not understood as a right to be 'healthy'. Rather, it is defined as a right to the enjoyment of a variety of diagnostic, curative, and preventive 'facilities, goods, services and conditions necessary for the realization of the highest attainable standard of health'.⁶³ Although this conception of the right to health is no doubt important, it may be valuable to examine to what extent the most basic conception of a right to health is protected through climate change action, because this will perhaps be more revealing about the inadequacies of the climate change response than the failure to meet a stringent conception of the right to health, which requires substantial action beyond lowering emissions or paying for adaptation costs. If even a very basic conception of a right to health cannot be said to be protected under current climate change action, then this will present a strong case for claiming that the climate change response is unjust, and unable to meet even the most minimal demands of justice.

Therefore, a right to health will here be defined as more minimal, and in line with the right to health defined in the Universal Declaration of Human Rights: 'a right to standard of living adequate for health and well-being.'⁶⁴ However, the human right to health, as defined in this thesis, serves to incorporate the right to sustenance and the right to life, as discussed above. The human right to health will therefore be defined as *the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health*. Minimally decent here refers to the definition provided above, which states that a minimally decent life is one not spent on the sole pursuit of survival. For this reason *a standard of health which sustains life at a minimally decent level and includes adequate sustenance to maintain this standard of health* refers to a standard of health which is adequate for an individual to live a minimally decent life without being burdened by disease, hunger, or thirst. In this way, the right to health incorporates the right to life, because it requires a level of health to maintain life at a minimally decent level, which implies that a person must be alive, and their right to life must be protected. Similarly, the right to health, as defined here, explicitly encompasses the right to sustenance, by calling for adequate sustenance to maintain a standard of health which sustains life at a minimally decent level. The thesis therefore encompasses Caney's three

⁶² Hayden, P., 'The Human Right to Health and the Struggle for Recognition' in *Review of international Studies* 38 (2012), p. 571

⁶³ *Ibid.*, p. 572

⁶⁴ United Nations, 'The Universal Declaration of Human Rights' <http://www.un.org/en/documents/udhr/> [accessed 15.01.2015]

rights under one right to health, which was argued to be possible and useful for the case of climate change above. To reiterate, the right to health, as defined here, is not considered the sole human right threatened by climate change, but rather seen as a useful representation of the key interests threatened by climate change.

The above defined right to health should be considered, in the case of climate change, as a negative right, because it was argued above that negative rights are more useful for the grounds of climate justice than positive rights. This implies that in order to respect the human right to health, actors must refrain from any action which reduces the standard of health to a level below minimally decent. Partaking in activities that reduce the standard of health below this threshold should be considered a violation to the human right to health. Importantly, this negative right is strong enough to require significant global action on climate change. Chapter One explained that in order to avoid dangerous climate change, global temperature change must be kept at or below 2°C compared to pre-industrial levels.⁶⁵ Importantly for this thesis, there is a relationship between the threat to the human right to health and the 2°C threshold. For one, the definition of a right to health, in this chapter, encompasses the right to sustenance, which is threatened by a 2°C rise. According to the IPCC, a 2°C rise would negatively impact production of wheat, rice, and maize in tropical and temperate regions.⁶⁶ In addition, a 2°C is projected to threaten renewable surface water and groundwater resources in most dry subtropical regions, intensifying competition for water among sectors.⁶⁷ This clearly illustrates that a rise in temperature of 2°C is projected to threaten the adequate level of sustenance necessary to standard of health which sustains life at a minimally decent level. In addition to this, a 2°C rise is projected to cause 'dangerous' climate change, which includes a major ice melting, wildfires, ocean acidification, and heat waves.⁶⁸ These effects of climate change will result in loss of life, forced migration, place stress on water and food resources, and result in spreading of diseases, as was explained in Chapter One and in the current chapter. Forced migration will threaten the right to health by exposing individuals to conditions which are likely to spread deadly diseases, as was explained above. Furthermore, stress on food and

⁶⁵ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

⁶⁶ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Climate Change 2007* www.ipcc.ch/ [accessed 12.02.2013], p. 48

⁶⁷ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 10

⁶⁸ Hansen, J., et al. 'Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature' in *Plos One*, 8 (2013), p. 3

water resources will threaten the right to health because these conditions are not conducive to a standard of health which sustains life at a minimally decent level. World health experts have concluded with ‘very high confidence’ that climate change will contribute to the global burden of disease and premature death, and that a rise of 2°C will lead to deleterious consequences.⁶⁹ All of the above seems to suggest that protecting the negative right to health, as defended in this thesis, will require that global temperatures are kept below at or below 2°C relative to pre-industrial levels.

Keeping global temperatures at this level will require substantial emissions reductions over the next few decades. The IPCC claims, at the time of writing, that emissions would have to be cut by 40% - 70% by 2050 compared to 2010, and would need to be near zero or below in 2100.⁷⁰ This will require substantial global action, because at the time of writing, emissions have not yet slowed. The latest IPCC report claims that greenhouse gas emissions have continued to increase over 1970 to 2010 with larger absolute increases between 2000 and 2010, despite a growing number of climate change mitigation policies.⁷¹ The growth rate of emissions increased from 1.5% a year in 1980 – 2000 to 3% a year in 2000 – 2012.⁷² This indicates that even a negative, minimal right to health, requires urgent change in behavior at the global level to keep global temperature change at or below 2°C.⁷³ In order to prevent the violation of the right to health, actors around the world will have to lower emissions substantially. Emission must be lowered because adaptation to climate change effects alone will not be enough ensure that the right to health is not violated. The IPCC explains that without mitigation efforts (lowering emissions), warming is more likely than not to exceed 4°C above pre-industrial levels by 2100.⁷⁴ The risks associated with temperatures at or above 4°C include substantial species extinction, global and regional

⁶⁹ Hansen, J., et al. ‘Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature’ in *Plos One*, 8 (2013), p 8

⁷⁰ *Ibid.*

⁷¹ *Ibid.*, p. 5

⁷² *Ibid.*, p. 1

⁷³ It should be noted that the goal of 2°C is disputed. Some scholars, such as James Hansen et al, claim that 2°C warming would have ‘deleterious consequences,’ which would have a significant impact on humans. Hansen et al. therefore argue that the UNFCCC should aim for a 1°C warming, but concede that this would require ‘extraordinarily rapid emissions reductions.’ Although Hansen et al. make a valuable observation; Chapter One explained that thesis is based exclusively on the findings of the IPCC because the IPCC provides a scale of peer reviewed scientific information which is unparalleled. For this reason, the goal of 2°C warming, recommended by the IPCC to prevent dangerous climate change effects, will be used in this thesis. Hansen et al. make an intriguing argument, but their evidence is not supported or peer reviewed by an international community of scientists in the same way the evidence of the IPCC is. See Hansen, J., et al. ‘Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature’ in *Plos One*, 8 (2013), pp. 1 – 26 for more details.

⁷⁴ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 12

food insecurity, consequential constraints on common human activities, and limited potential for adaptation.⁷⁵ In other words, if emissions are not lowered, it will not be possible for humans to 'adapt themselves out' of climate change. After a certain point, there will be irreversible damages which not only threaten the right to health,⁷⁶ but also cannot be addressed by adaptation. These irreversible damages have the potential to exist for multiple centuries, or even millennia, threatening the right to health of humans far into the future.⁷⁷

To take one example of an irreversible effect of climate change, consider Antarctic ice sheets. These ice sheets required millennia to grow to their present sizes. Once ice sheet disintegration reaches a certain point, the momentum of the process of melting will mean further melting is unpreventable, which will cause sea level rise of many meters and worldwide loss of coastal cities, a consequence that is irreversible.⁷⁸ A loss of coastal cities will threaten the human right to health, as people are forced to migrate, potentially spreading diseases, and forced to live in inadequate conditions. As another example, take the extinction of species, which will have irreversible consequences on ecosystems which humans depend on to remain alive.⁷⁹ If ecosystems are damaged irreversibly, then this will threaten the right to health because it will result in loss of sustenance sources for humans who depend on these ecosystems. Finally, along with irreversible damage, a lack of mitigation (lowering emissions) can also lead to sudden, unpredictable, large scale impacts descending at random on particular individuals, communities, industries and visiting them with pure, unrecoverable costs.⁸⁰ The risks of abrupt or irreversible changes increase as the magnitude of global warming increases.⁸¹ An accumulation of GHG gases in the atmosphere may quite suddenly drive the climate system into some unanticipated, radically different state to which it is virtually impossible to adapt.⁸² In sum, according to the best available

⁷⁵ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 12

⁷⁶ Caney, S., 'Climate Change, Human Rights, and Moral Thresholds' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 168

⁷⁷ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 11

⁷⁸ Hansen, J., et al. 'Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature' in *Plos One*, 8 (2013), p. 13

⁷⁹ Jamieson, D., 'Adaptation, Mitigation and Justice' *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 266

⁸⁰ Gardiner, S., 'Ethics and Global Climate Change' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 12

⁸¹ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 11

⁸² Jamieson, D., 'Adaptation, Mitigation and Justice' *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 266

scientific evidence, it seems that it is not possible to refrain from violating the right to health without lowering emissions. This will be further discussed in Chapter Five, which will outline what justice demands in the case of climate change.

It should be noted that even though the right to health has been defined as minimal, when it comes to a right to health and climate change in the long run, more must be done. The right to health is linked to other, more complex matters. A useful way to illustrate this point is to outline the social determinants of health, which encompass the ways in which health is shaped by various social factors and living conditions.⁸³ Some examples of social determinants of health are income and employment, education, health systems, social protection, the built environment, and social patterns of exclusion.⁸⁴ Most of these social determinants of health overlap and affect one another.⁸⁵ For example, two of the most impactful social determinants of health are income and education, and these factors seem to be intertwined in a number of ways. Studies show that the most disadvantaged members of society, especially those with below poverty-level incomes or without a high-school diploma, generally experience the worst health, and even those with intermediate income appear less healthy than the most affluent and educated members of society.⁸⁶ The direct impact of income is related to having more economic resources, and thus having access to healthier nutrition, housing, or neighborhood conditions, or less stress due to the availability of more resources to cope with daily challenges.⁸⁷ Income is linked to education, because poor families may not be able to send their children to school or university, and without degrees, these children will not be able to get high paying jobs in their adult life, and not send their own children to school, meaning the cycle of lack of education and poverty continue, which negatively impacts health.

Some of the above social determinants are linked to climate change, since climate change affects the built environment and health systems, but many are also linked to overarching global inequality issues, such as unequal income, education, and unemployment, which are important to highlight as a cosmopolitan. Cosmopolitan justice is concerned with the equal treatment of morally equal human beings, and the social determinants of health are clearly not distributed in an equal manner across the globe, or even within nations. If they were,

⁸³ Labonte, R., and Ruckert, A., 'The Social Determinants of Health' in *Global Health Policy*, eds. G.W. Brown, G. Yamey and S. Wamala (Cambridge: Willy-Blackwell, 2014), p. 1

⁸⁴ *Ibid.*, p. 8

⁸⁵ *Ibid.*, p. 18

⁸⁶ *Ibid.*, p. 9

⁸⁷ *Ibid.*

then every individual on the planet would be in good health. The high rates of childhood mortality and low life expectancy in poorer countries and the high levels of health inequality even within the richest countries suggest that this is not the case. For this reason, protecting the right to health adequately will include taking aspects of the social determinants of health seriously. Rectifying the unequal distribution of these social determinants will necessarily require substantial resources for redistributive purposes.⁸⁸

However, for the purposes of this thesis, which seeks to assess current action on climate change from a global justice perspective, a minimally defined negative right to health will be enough to illustrate that current climate action does not represent a just response to climate change. The above serves only to acknowledge that health is a complex issue, which is being simplified for the sake of this thesis in order to demonstrate that climate change action cannot be said to represent even the most minimal protection of the right to health. For this reason, the climate justice position will be grounded in the negative right to health, defined as the human right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.⁸⁹

Conclusion

This chapter concerned defining what grounds the conditions of justice. The chapter defended the use of a human rights based approach and explained that human rights will be defined as protecting human interests. Following this, the chapter examined existing

⁸⁸ Labonte, R., and Ruckert, A., 'The Social Determinants of Health' in *Global Health Policy*, eds. G.W. Brown, G. Yamey and S. Wamala (Cambridge: Willy-Blackwell, 2014), p. 18

⁸⁹ The main focus of the thesis is human interests, as opposed to animal interests. It is difficult to deny that animals also have basic interests. Alistair Cochrane puts forward a persuasive argument, which states that 'it is surely only sensible to recognize that all sentient creatures have at least some very basic interests which are sufficiently strong, all things considered, to ground some duties on the part of others.' He uses the example of the interest not to be subjected to excruciating pain for amusement. He explains that 'this interest must be considered sufficiently strong to impose a duty on us because after all, the interest in avoiding excruciating pain is clearly weighty, and the interest in being amused is only trivial. At the very least then, we can confidently claim that all sentient creatures possess the basic right not to be inflicted with excruciating pain simply for the amusement of others.' In the case of climate change, it could be argued that animals have the same basic interest in having enough water and food to survive, and having an adequate level of health to sustain a minimally decent life. Cochrane explains that many of the higher animals at least have appetites and can feel the pain of ill health, extreme thirst and starvation, basic facts which constitute their interests. Furthermore, as Peter Singer argues, the moral basis of equality among humans is not equality in fact, but the principle of equal consideration of interests, and it is this principle that, in consistency, must be extended to any non-humans who have interests. Cochrane and Singer's arguments are very persuasive, and intuitively it seems that animal interests should be protected from the effects of climate change. However, as this thesis is based in a cosmopolitan approach, and takes individual humans and their moral worth as the ultimate unit for concern, including animal rights is beyond the scope of the thesis, and will not be considered as part of the global justice position defended here. For details on the arguments outlined above, see Cochrane, A., 'From Human Rights to Sentient Rights' in *Critical Review of International Social and Political Philosophy* 1 (2012), pp. 1 – 21, Feinberg, J., 'The Rights of Animals and Future Generations' in *Philosophy and Environmental Crisis*, eds. Blackstone, W. (Athens, GA: University of Georgia Press, 1974), and Singer, P., 'Not for Humans Only: The Place of Nonhumans in Environmental Ethics' in K.E. Goodpaster and K. M. Sayre (eds.) *Ethics and Problems of the 21st Century* (Notre Dame: University of Notre Dame Press, 1979)

cosmopolitan arguments for human rights in the case of climate change in order to assess whether any right, or set of rights, are best suited for the grounds of justice. It was put forward that negative rights, substantive rights, and existing rights are particularly useful for the climate justice position defended in this thesis. Finally, it was argued that the right to health encompasses the key basic human interests threatened by climate change, and is therefore sufficient to ground the climate justice position. The chapter defined the right to health as *the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health*, and began to explain what action is necessary according to this right. Chapters Three and Four have now laid the foundation for Chapter Five, which will use the scope and grounds of climate justice developed in these two chapters in order to define what climate justice demands.

Chapter Five – The Demands of Climate Justice

Introduction

This chapter is the third of three chapters that make up Part II of the thesis ‘Developing a Global Justice and Climate Change Position.’ Chapter Three concerned defining the scope of climate justice, Chapter Four was concerned with setting out the grounds of climate justice, and this current chapter will identify what climate justice demands. The chapter will build on Chapters Three and Four and complete the climate justice position defended in the thesis by defining three demands of justice required to meet a condition of justice in the case of climate change. These three demands are considered normative principles, which must underwrite a more just global response to climate change. To achieve this, the chapter will explore three main issues associated with the empirical conditions of climate change, namely what is owed to future generations, how to include less developed countries in climate change action, and who makes up the responsible ‘collective’ in collective action. Chapter Two argued that these issues must be addressed in a normative assessment of the climate change problem, because they are part and parcel of the problem.

The chapter will be organized into three main parts. The first section will address how much is owed to future generations. It will be argued that the non-relational scope of the mixed position defined in Chapter Three, and the grounds of justice defined in Chapter Four imply that the right to health¹ of future generations must be considered to be equally as valuable as the right to health of current generations. This will be considered as the non-relational minimum, which cannot be crossed under any circumstances. The section that follows will use the relational side of the mixed position to explore the relationship between developed countries and less developed countries, and make the case that states should be held to account according to both their emissions levels and wealth levels. This will be considered a relational demand which stems from the special relationships created by climate change. Finally, the third section of the chapter will make the case that empirical conditions of the climate change problem imply that responsible actors making up the ‘collective’ in collective action extend beyond states, and should include all capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in. This conception of collective responsibility will be developed from a relational discussion of the relationships between actors causing

¹ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

climate change and those suffering from its consequences, and make up the third demand of justice. The chapter will conclude with a summary of the arguments made in Part II of the thesis, and outline what is to come in Part III.

Future Generations

The issue of future generations, and particularly how much is owed to them, is a contentious topic within climate ethics literature. This section of the chapter will explain what exactly is owed to future generations according to the climate justice position defended in this thesis. In order to determine this, it must first be argued that future generations are an important part of the climate change problem, and must therefore be considered within the climate justice position defended in this thesis.

Future Generations and Climate Change

As was explained in Chapter One, future generations are part and parcel of the climate change problem, because future generations will be the primary victims of climate change. Although climate change effects are already occurring and will increasingly affect present generations, a temperature change of 2°C, which will result in ‘dangerous climate change’ according to the Intergovernmental Panel on Climate Change (IPCC) will not occur until 2050-2100.² This implies that the primary group of victims will be those who are not yet alive today. To complicate matters, the main benefit of emissions, namely energy production, is largely consumed by the present generation.³ This provides a significant incentive for the current generation to take no action, because members of the current generation may never see the environmental benefits of cutting back on their energy. In addition, there is no chance for a reciprocal relationship between present and future generations. Future generations cannot offer present generations any reward for their actions. Furthermore, future generations may have interests, but cannot express these, as they do not yet exist, and therefore have no bargaining power.⁴ Deciding what action to take on climate change, a decision that will significantly affect future generations, therefore rests completely with the current generation. For this reason, it is important to define what is owed to future generations. More specifically, the rights of future generations must be defined, because rights imply duties. If rights are not defined, it may be difficult to argue that present generations have any duties to change their current behavior. For the reasons above, a discussion of the rights of future generations must be

² Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

³ Gardiner, S., ‘The Global Warming Tragedy and the Dangerous Illusion of the Kyoto Protocol’ in *Ethics and International Affairs* 18 (2004), p. 30

⁴ *Ibid.*

included in the climate justice position explicated in this thesis. The chapter now turns to this discussion, by assessing arguments for and against the rights of future generations. It will be put forward that the scope and grounds of justice defended in the previous chapters imply that arguments for the rights of future generations outweigh arguments against these rights. Through this discussion, the chapter will take a stance on how much is owed to future generations according to the climate justice position defended in this thesis.

The Case Against the Rights of Future Generations

The most well-known argument against protecting the rights of future generations is a problem presented by Derek Parfit. Parfit sets up a puzzle he refers to as the ‘non-identity problem,’ which asserts that the harm committed against future generations is not morally problematic as long as these individuals have a life worth living. It is worth noting that Parfit himself does not seek to support a specific stance here, but is rather setting up a problem which must be solved. The non-identity problem rests on the idea that the exact moment an individual is conceived is highly important: if an individual had been conceived ‘even an hour after their actual conception,’ they would not be the same individual, but someone else, because the genetic makeup of the individual would be based on a different sperm.⁵ This is relevant to the climate change problem for the following reason. When current generations choose to pollute, this means that there will be a higher standard of living for the next few centuries, resulting from the profits of energy consumption. According to the logic underpinning the non-identity problem, this will directly affect conception times, because being richer implies that people will marry different people over time, and even in the same marriages, the children will be conceived at different times.⁶ This implies that current generations can directly affect which individuals are conceived by choosing not to lower greenhouse gas (GHG) emissions, which will affect wealth levels, and ultimately conception times.

According to non-identity problem, the power of current generations to affect conception implies that future generations cannot be harmed, because they are benefitted overall by being born in the first place.⁷ In this sense, even if high GHG emissions levels negatively affect the environment, existing and suffering from the effects of climate change is better than never having existed at all. Therefore, the decision of present generations to emit

⁵ Parfit, D., ‘Energy policy and the Further Future: The Identity Problem’ in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 113

⁶ *Ibid.*

⁷ *Ibid.*, p. 114

GHGs, which leads to the birth of a specific future generation, does not harm that specific generation. If GHG emissions levels had been lowered, then specific future generations would never have been born. Since it is better to be alive and existing in the conditions caused by climate change than never being born, there is no moral wrong in emitting GHGs, because this leads to future generations benefitting by being born in the first place.⁸ However, there is a caveat to the non-identity problem, which is that individuals must be able to lead a 'life worth living.'⁹ According to the non-identity problem, if polluting results in lives which are worth living, then 'we know that our choice [to pollute] will not be worse for [future generations].'¹⁰ This is an important caveat, which will be further discussed below, when it will be questioned whether future generations will be able to lead such a life if their right to health is violated.

This 'non-identity' problem is the most common argument used to reject the idea of obligations to future generations. There are not many arguments against obligations to future generations which are as convincing as Parfit's non-identity thought experiment. Other, less sophisticated counterarguments do exist, and are often presented by the utilitarian or pragmatist theorists discussed in Chapter Two. These theorists commonly claim, for example, that future generations will be better off than present generations, and will therefore have the capacity to address climate change.¹¹ These types of arguments will be addressed alongside Parfit's argument below, when making the case for the rights of future generations.

The Case for the Rights of Future Generations

There are several justice based arguments in defense of the rights of future generations. One argument commonly put forward by justice theorists is that time of birth is a matter of luck, similarly to place of birth, rendering time morally arbitrary.¹² An individual cannot choose when to be born, so this should not affect what they deserve. This assertion is usually based on a non-relational conception of justice, which, as explained in Chapter Three, requires all humans to be included in the scope of justice, on the basis of their

⁸ Parfit, D., 'Energy policy and the Further Future: The Identity Problem' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 116

⁹ *Ibid.*, p. 113

¹⁰ *Ibid.*, p. 116

¹¹ See for example, Collier, P., *The Plundered Planet: How to Reconcile Prosperity with Nature* (London: Allen Lane, 2010), p. 201, or Lomborg, B., *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge: Cambridge University Press, 2001), p. 322

¹² See for example Caney, S., 'Climate Change and the Future: Discounting for Time, Wealth, and Risk' in *Journal of Social Philosophy*, 40 (2009), p. 168 or Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 114

humanity. In this way, all humans are morally equal, no matter the time or place of their birth. Chapter Three explained that the scope of justice defended in this thesis is based, in the first instance, in a non-relational conception of justice. This non-relational scope implies that present and future generations must be considered as morally equal, because both generations are made up of morally equal individuals. As was explained in Chapter Four, the non-relational scope of this thesis is grounded in the right to health, which implies that all humans, unconditionally, have the right to health, defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health. In terms of future generations, this implies that right to health of future generations is morally as important as the rights of current generations, because future generations and present generations are part of the non-relational scope of this thesis, which is grounded in the right to health. This implies that the basic right to health of future persons must not be sacrificed in order to promote the basic right to health of the present generations.

However, before ascribing the right to health to future generations, it must be illustrated that it is indeed possible for future generations to possess rights. This is a contentious issue, because future generations do not yet exist, and there may be doubt over whether non-existent individuals can be said to possess human rights. Since rights are intended to protect or advance a person's basic interests, as was argued in Chapter Four of this thesis, the question to ask is whether it is possible to attribute basic interests to future generations without knowledge of who these individuals will be. If this is the case, a right to health, which is based on the basic interest in health, can be attributed to individuals who make up future generations. Steven Vanderheiden claims that this is indeed possible, because even if the exact genetic makeup of future generations is unknown, it can be assumed that future generations will have interests, because they will be humans.¹³ Importantly for this thesis, it can be assumed that future humans will have the same basic needs of clean water, sufficient nutrition, adequate housing, and lack of diseases to maintain basic health. Therefore it can be assumed that future generations will have a basic interest in health. And as Vanderheiden explains, 'although we do not violate the interests of future generations now, because future people do not yet exist, our actions are almost assured to do so in the future.'¹⁴ This has important moral implications.

¹³ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 129

¹⁴ *Ibid.*

The time-lag between actions today and the violation of interests in the future is arguably morally irrelevant according to a non-relational conception of justice. According to the non-relational scope of this thesis, all individuals, irrespective of their time or place of birth, have the right to health, because they have a basic interest in health, and there is a duty of justice to respect this right. For this reason, it is morally wrong to act in ways that cause an individual's right to health to be violated, whether the right is violated immediately or at some point in the future.¹⁵ As Vanderheiden explains, 'if we adopt a polluting policy today and some future technology prevents it adversely affecting persons a century from now, that policy is nonetheless wrong at the time we adopt it insofar as we can anticipate its harmful effects.'¹⁶ Therefore, if a right will in the future be threatened by policy decisions made today, then the ability to connect those policy decisions with future rights violations must inform current decisions.¹⁷ Vanderheiden refers to this as the rational capacity for foresight: 'the fact that we can foresee having obligations has moral consequences for us.'¹⁸ This argument complements the position taken in this thesis which aims to respond to the best available scientific evidence on the empirical conditions of climate change. If this evidence is accepted as credible, there arguably exists 'rational foresight' which can predict that basic interests in health of future generations will be threatened by climate change. Since the right to health¹⁹ serves to protect the basic interest in health, this implies that the right to health must be respected, and current action on climate change must take the right to health into account.

The argument above presents a powerful response to the non-identity problem, because it illustrates that present generations can harm future generations, by violating their basic interests, and therefore their human rights. This seems to suggest that the violation of human rights is an important moral wrong which is not fully acknowledged in the non-identity problem. Instead, the non-identity problem purports that future generations are overall benefitted from being born, and can therefore not be harmed by current pollution. James Woodward is critical of this notion and puts forward that even if an action which violates a person's human rights benefits this person in some way, this does not cancel out or detract from the moral wrong of the rights violation. For example, even if an individual

¹⁵ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 130

¹⁶ *Ibid.*, p. 132

¹⁷ *Ibid.*

¹⁸ *Ibid.*, p. 136

¹⁹ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

who was held in a Nazi concentration camp feels that this experience bestowed him with a deeper appreciation of life than if he had not been a prisoner, this does not negate the fact that his human rights were violated.²⁰ In this sense, even if high emitting present generations benefit future generations by ensuring that they are born, which means they are better off than if they had never been born at all, this does not detract from the moral wrong which is committed against future individuals whose basic right to health is violated. The non-identity problem does not address this moral harm, and is for this reason does not provide an adequate defense against the rights of future generations.

Furthermore, the non-identity problem asserts that polluting is acceptable if future individuals lead a worthwhile life. However, it was explained in Chapter Four that humans will not be able to lead a minimally decent life if their basic interests are violated. A minimally decent life has been defined as one which is not consumed with the struggle to survive. If present generations continue to emit, then future generations' basic interest in health will be violated, which will result in these individuals living lives that are not minimally decent, as was explained in Chapter Four. This seems to imply that the non-identity problem falsely assumes that future generations will be able to lead a worthwhile life even if pollution occurs. In other words, the non-identity problem is arguably mistaken in its assertion that future generations will be able to lead a life worth living. Moreover, the non-identity problem is not able to account for the moral importance of violating the rights of future generations. For these reasons, the non-identity problem will at this point be dismissed as an argument against the protection of the right to health of future generations.

Another potential criticism against protecting the rights of future generations is put forward by some pragmatists and utilitarians, who claim that future generations will be better off than present generations, and will therefore have the capacity to address climate change.²¹ For these theorists, this assumption is enough to discount the rights of future generations, and allow present generations to emit GHGs until a less costly solution to curbing emissions is found. The problem with this type of argument, according to Simon Caney, is that it is not certain future generations will be wealthier, because the level of cost

²⁰ Woodward, J., 'The Non-Identity Problem' in *Ethics*, 96(4), (1986), p. 809

²¹ See for example, Collier, P., *The Plundered Planet: How to Reconcile Prosperity with Nature* (London: Allen Lane, 2010), p. 201, or Lomborg, B., *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge: Cambridge University Press, 2001), p. 322

to tackle climate change may increase at a greater speed than the level of wealth.²² Secondly, the argument overlooks that it may be cheaper to tackle the problem earlier rather than later, or even that there may be a ‘tipping point’ of irreversible damage.²³ In other words, Caney claims that assuming that future generations will be richer necessarily means oversimplifying the climate change problem by making assumptions which are not in line with the climate science outlined in Chapter One and Chapter Four. Both of these chapters explained that continued GHG emissions will lead to increasingly dangerous climate change effects, and that eventually, inaction will lead to irreversible damages, which are incompatible with human life. These irreversible changes include mass extinction of animals, changes in marine ecosystem productivity, damage to fisheries, changes in oceanic oxygen concentrations and decreased terrestrial vegetation.²⁴ For this reason, claiming that future generations will be better off, and therefore better equipped to deal with the consequences of climate change, is an epistemic presupposition of the scientific evidence on climate change. The argument that future generations will be better off will here be dismissed, and not considered reason enough to discount the rights of future generations. Now that the arguments for and against the rights of future generations have been explored, the chapter turns to what climate justice demands in the case of future generations.

In line with the non-relational conception of climate justice defended in Chapter Three, which is grounded in the right to health defended in Chapter Four, it seems clear that the defense of the right to health of future generations must be included in the conception of climate justice defended in this thesis. The thesis is based, in the first instance, on a non-relational conception of justice and defines a moral minimum of every person having the human right to health by virtue of their humanity. This implies that the right to health of future generations is morally as important as the right to health of current generations. More specifically, since it can be reasonably assumed that future generations will have a basic interest in health, as explained above, rights-discounting is considered to be incompatible with the global justice position defended in this thesis. This implies that the right to health does not diminish over time, and future generations have a right to health in the same sense that present generations do, and this right must be protected. Taking these

²² Caney, S., ‘Climate Change and the Future: Discounting for Time, Wealth, and Risk’ in *Journal of Social Philosophy*, 40 (2009), p. 172

²³ *Ibid.*, p. 174

²⁴ Intergovernmental Panel on Climate Change, *IPCC Fourth Assessment Report: Summary for Policy Makers, 2007* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [accessed 12.02.2013], p. 56

considerations into account, the stance on future generations is as follows: the right to health²⁵ of future generations is considered to be equally as valuable as the right to health of current generations, and must therefore be protected. This is the first explicit demand of justice that must be met in order to achieve a condition of climate justice according to the position defended in this thesis.

Substantial action on climate change will be required in order to meet this demand. Chapter Four explained that in order to protect the right to health of future generations, the global temperature rise must be kept at or below 2°C. Surpassing this threshold will lead to wide scale floods, droughts, heat-waves, sea-level rises, and forced migration, all of which threaten the right to health, as was explained in the previous chapter.²⁶ Although the 2°C goal is becoming increasingly difficult due to current inaction, the IPCC maintains, at the time of writing, that there are multiple mitigation pathways that are *likely* to limit warming to below 2°C.²⁷ As was explained in the previous chapter, these pathways would require extensive emissions reductions over the next few decades.²⁸ The IPCC stresses that emissions would have to be cut by 40% - 70% by 2050 compared to 2010, and would need to be near zero or below in 2100.²⁹ This will be further discussed in Part III of the thesis, particularly in Chapters Seven and Eight, which concern assessing current practice. For now, the chapter merely serves to highlight that the non-relational scope of the thesis, which is grounded in the right to health, calls for extensive lowering of global emissions.

Less Developed Countries

The question of how to include less developed countries in climate change action is subject to ongoing debate within the climate justice field. In order to explore this question, it must first be explained that less developed countries are important to the climate change problem. After this has been clarified, the chapter will discuss how to include less developed countries in climate change action, or, more specifically, discuss how global benefits and burdens should be distributed between developed countries and less developed countries. This is a relational discussion. The thesis has defined a moral

²⁵ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

²⁶ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ *Ibid.*

minimum using a non-relational scope and grounds of justice above: the right to health³⁰ of future generations is considered to be equally as valuable as the right to health of current generations, and must therefore be protected. This sets a moral minimum that cannot be crossed, and implies that action on climate change is morally necessary. The discussion below will now assess what kind of action is necessary, by exploring the relationship between developed countries and less developed countries. In other words, the thesis has now set a non-relational minimum, and moves onto the relational discussion, which seeks to explore what demands of justice stem from the relationships arising as a result of climate change. This was defended as important and necessary in Chapter Three, which advocated a scope of justice that is both relational and non-relational, so as to fully capture the empirical realities of the climate change problem.

Before the importance of less developed countries is discussed, the benefits and burdens of climate change must be briefly defined, in order to clarify what exactly is at stake. Benefits in the case of climate change include profits made by large industries (e.g. oil and automobile), as well as smaller scale companies who profit from pollution.³¹ There are also individual level benefits such as driving, air travel, heating and cooling of homes, and buying foreign products. Climate change burdens, on the other hand, are usually split into two broad categories: mitigation and adaptation.

Mitigation burdens are defined as the costs of actors not engaging in activities that contribute to climate change. This is an opportunity cost, because these actors forego benefits they could have had if they had been allowed to emit freely, for example profits from production of goods.³² Mitigation burdens can also involve additional costs associated with lowering emissions, for example investing in new technology. In contrast, adaptation burdens are defined as the costs of adopting measures which enable others to cope with the ill effects of climate change.³³ Examples include building seawalls to protect those who live near the coast, subsidizing people to move away from threatened areas, inoculating people from infectious diseases, supporting irrigation systems in drought prone areas, and sending overseas aid to victims of malnutrition.³⁴ These and other burdens of adaptation

³⁰ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

³¹ Gardiner, S. M., 'Ethics and Global Climate Change' in *Ethics*, 114 (2004), p. 595

³² Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 751

³³ *Ibid.*, p. 752

³⁴ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 204

are largely financial burdens. As was explained in Chapter One, it is widely recognized that whatever happens, some adaptation measures will be required alongside mitigation measures. This is because even if emissions are cut dramatically, the greenhouse gases (GHGs) expelled so far are predicted to cause environmental changes.³⁵ For this reason, mitigation and adaptation will both need to be pursued. The chapter now turns to how these burdens should be distributed between developed and less developed countries according to the climate justice position defended in this thesis.

The Importance of Less Developed Countries

There are two main reasons why less developed countries must be considered in the conception of climate justice defended in this thesis. The first is because these countries will be hardest hit by the detrimental effects of climate change. As was explained in Chapter One, this is in part because of their geographical location and in part because these countries depend on local resources which will be affected by climate change more than developed countries. In addition, less developed countries may not have the financial assets to respond to climate change, and will as a consequence not be able to prepare or defend themselves against effects like flooding, droughts, or rising sea levels.³⁶ As this thesis is based in a non-relational conception of justice, which implies that every human, by virtue of their humanity, has the basic right to health, it seems clear that less developed countries must be included in a conception of climate change justice because the basic right to health of individuals living in these countries is threatened by climate change. They are the primary victims of climate change, alongside with future generations, as explained in Chapter One.

However, there is an important difference between future generations and less developed countries, because unlike future generations, which do not yet exist, some less developed countries currently have an effect on global GHG levels. This is the second reason they must be included in a climate justice conception. It is now becoming increasingly clear that if less developed countries pursue their own economic development with the same disregard for the natural environment that developed countries displayed, it will dramatically worsen the predicted effects of climate change.³⁷ In fact, less developed

³⁵ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 205

³⁶ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 25

³⁷ Shue, H., 'Global Environmental and International Inequality' in *International Affairs*, 75 (1999), p. 531

countries are projected to contribute 45% of global emissions by 2050.³⁸ It is therefore necessary to consider how to include less developed countries in global climate change action, so that these countries can contribute to lowering global emissions to avoid global temperatures rising by more than 2°C. However, this inclusion is no simple matter, because the relationship between developed countries and less developed countries is quite complex, as will be explored below.

Before the relationship between developed and less developed countries can be discussed, it is important to stress that the term 'less developed country' is not a straightforward or unproblematic categorization. Interestingly, the category of less developed country is often skirted over or left undefined within climate justice literature. For example, Steven Vanderheiden³⁹ and Simon Caney⁴⁰ do not provide a definition of less developed countries, and simply state that countries such as China, India, and Brazil are less developed. Similarly, Paul Harris does not define less developed countries and includes China under his conception.⁴¹ Finally, Henry Shue⁴² and Edward Page⁴³ discuss less developed countries at length, without providing a definition of this category. Leaving less developed countries undefined is problematic, because this categorization is not uncontested.

To illustrate the contested nature of the category, consider that the World Bank defines countries as less developed according to a simple economic calculation: countries with a gross national income of 11,905 US Dollars or less are currently (until December 2015) defined as developing countries.⁴⁴ In contrast to the World Bank, the United Nations Development Program (UNDP) takes a more complex approach, dubbed the 'Human Development Index', which includes more than economic considerations. According to the UNDP, the Human Development Index was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not

³⁸ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 13

³⁹ Vanderheiden, St., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 14

⁴⁰ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 213

⁴¹ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 94

⁴² Shue, H., 'Global Environmental and International Inequality' in *International Affairs*, 75 (1999), p. 534

⁴³ Page, E., 'Give it Up for Climate Change: a Defence of the Beneficiary Pays Principle' in *International Theory*, 4 (2012), p. 305

⁴⁴ International Statistics Institute 'Developing Countries' <http://www.isi-web.org/component/content/article/5-root/root/81-developing> [accessed 03.04.2015]

economic growth alone.⁴⁵ The Human Development Index takes into account three factors: life expectancy, level of education, and standard of living. The scores of these factors are then aggregated into a composite index using geometric mean.⁴⁶ The difference in the approaches of the UNDP and the World Bank is illustrative of the fact that categorizing countries is not a straightforward process, and that the category of less developed country should not be seen as uncontested. There is disagreement over which factors to take into account, and there is no one standard definition of 'less developed.' To add to the complexity, there is a category which captures 'five major emerging national economies' referred to as BRICS (Brazil, Russia, India, China, and South Africa). Although all of these countries, except Russia, are considered less developed according to the World Bank,⁴⁷ the BRICS countries are distinguished from other less developed countries by their large, fast-growing economies and significant influence on regional and global affairs (all five are G20 members, for example). Furthermore, the BRICS countries represent 26% of the planet's land mass, are home to 46% of the world's population, and account for 18% of the world's GDP.⁴⁸ The economic and political power of these nations is indicative of the reality that the category of 'less developed countries' captures countries, which are incredibly diverse – China and Somalia for example are both considered less developed according to the World Bank.

The distinction between less developed and developed countries is especially important in the case of climate change, because under current climate change governance laws, only certain 'developed' countries are held to direct account for financial contributions and lowering of emissions. This will be further discussed in Chapter Seven, but it is worth briefly explaining the categories employed by the United Nations Framework for Climate Change (UNFCCC) here. The UNFCCC currently has four categories of countries: Annex I, Annex II, non-Annex I, and Least Developed Countries. As will be discussed in Chapter Seven, the Annex I countries are 'industrialized' and held to account for emissions reductions, and the Annex II countries, which represent the Organization for Economic Co-operation and Development members of Annex I, are held to account for financial contributions.⁴⁹ Non-

⁴⁵ Human Development Reports 'Human Development Index' <http://hdr.undp.org/en/content/human-development-index-hdi> [accessed 03.04.2015]

⁴⁶ *Ibid.*

⁴⁷ International Statistics Institute 'Developing Countries' <http://www.isi-web.org/component/content/article/5-root/root/81-developing> [accessed 03.04.2015]

⁴⁸ BRICS, 'Economic Data and Trade Statistics' <http://brics6.itamaraty.gov.br/about-brics/economic-data> [accessed 04.03.2015]

⁴⁹ UNFCCC 'Parties and Observers' http://unfccc.int/parties_and_observers/items/2704.php [accessed 03.04.2015]

Annex I countries, a category which includes 148 countries including Brazil, China, India and South Africa, are considered 'mostly developing countries' and are currently not held to account for emissions reductions or financial contributions.⁵⁰ Finally, out of the 148 Non-Annex I countries, there are 49 'Least Developed Countries' which are considered especially vulnerable to climate change because of their limited capacity to respond and adapt to its adverse effects.⁵¹ In sum, under the UNFCCC, all 148 countries outside of Annex I and II are considered developing countries, and there are 49 countries, including Angola, Rwanda, Uganda, and Somalia, which are especially vulnerable to climate change. The category of less developed countries under the UNFCCC is indicative of the complexity of defining 'less developed.' The discussion below, and remainder of the thesis, will aim to take the above complexities into account when discussing the relationship between less developed and developed countries. Because this thesis concerns itself with climate change, the categories of the UNFCCC will be used to define which countries are less developed (non-Annex I) and which countries are particularly vulnerable to climate change (Least Developed Countries). However, it should be noted that this is not the only way to categorize these countries, and that the thesis is merely following one categorization which is well established, and more importantly, relevant to the climate change problem.

The Distribution of Benefits and Burdens in Climate Change

As can be seen above, less developed countries must be included in a conception of climate justice because they present one group of primary victims of climate change, and because they at the same time contribute to the climate change problem. However, deciding on how to include less developed countries in climate change action is by no means a straightforward matter, especially because the category of less developed country is not only contested, but often very broad, encompassing countries which differ from one another significantly. Interestingly, although the category of less developed country is very broad, there is one issue in particular which is often discussed in climate ethics literature when considering how to include less developed countries in climate change action. This is the issue of fairness, which arises from the relationship between developed countries and less developed countries in the case of climate change. Historically, developed countries are the main cause of climate change, and less developed countries are said to find it unfair that they must curb emissions when developed countries had the chance to emit freely. In addition, less developed countries are said to find it unfair that they must suffer from

⁵⁰ UNFCCC 'Parties and Observers' http://unfccc.int/parties_and_observers/items/2704.php [accessed 03.04.2015]

⁵¹ *Ibid.*

consequences of climate change, when they have not caused this problem, and therefore deserve compensation.⁵² At the same time, developed countries have been known to be hesitant to act without the commitment of less developed countries, which is one of the main reasons the United States did not ratify the Kyoto Protocol.⁵³ In sum, it seems that the relationship between developed and less developed countries reveals questions of fairness in terms of the distribution of benefits and burdens in climate change. Fairness is extremely important in the case of climate change because proposed action which is seen as unfair is likely to be rejected, and efforts to reduce the effects of climate change will be drastically undermined due to lack of participation. Considering the urgency of the climate change problem, and the non-relational right to health which is at stake, action on climate change is morally required. If the issue of fairness is important in terms of taking climate change action, then finding a fair solution is, by this logic, morally important. For this reason, it is arguably morally important to consider what less developed countries consider to be a fair distribution of benefits and burdens in the case of climate change.

The notion of a fair distribution of benefits and burdens will here be defined in line with Brian Barry's definition of fair distribution. Barry defines fair distribution as a distribution 'people can accept not merely in the sense that they cannot reasonably *expect* to get more, but in the stronger sense that they can reasonably *claim* more, morally speaking, as they can reasonably accept the distribution and have no moral claim for a different distribution.'⁵⁴ Under this conception, if distribution is reflective of what all parties can reasonably agree to, then it is morally fair, because no one party could morally expect more than this. Barry's argument resides on the idea that if a party can reasonably agree to a distribution, this implies that the party accepts this distribution as fair. This definition of fairness has been well established in political philosophy. Although there exist other conceptions of fairness, Barry's conception is useful in the sense that it provides a moral argument for exploring the relationship between parties in order to understand what these parties could reasonably agree to. Barry provides a manner in which to explore the realities of existing relationships and define what is morally fair in these relationships. Finding a fair solution to the distribution of benefits and burdens is morally important in the case of climate change, and Barry provides a blueprint for finding this fair solution. For this reason,

⁵²Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 91

⁵³*ibid.*, p. 90

⁵⁴ Barry, B. *Theories of Justice* (Berkeley: University of California Press, 1989), p. 8

the thesis will adapt Barry's conception of moral fairness, in order to discuss how to fairly distribute benefits and burdens between developed and less developed countries.

Although the thesis makes use of Barry's position, his position will necessarily have to be adapted in order to ensure that it is compatible with the global justice approach taken here. While the demand of justice developed below is a normative one, and reflects what countries *ought to do* according to the climate justice position defended here, the thesis will base this demand on a discussion of what less developed countries actually find fair, and would therefore agree to. In other words, the chapter explores the realities of the relationship between developed and less developed countries in order to consider what justice demands in the case of this relationship. This differs from Barry's conception, which is moral rather than empirical in the sense that he is not concerned with what parties actually want, but rather solely concerned with what parties *ought to do*.

The thesis adds an empirical element to the discussion in order to apply the mixed scope of justice defended in Chapter Three. The scope of justice employed in this thesis is in part relational, and aims to explore the realities of global relationships caused by climate change in order to explicate demands of justice. In this sense, the thesis must explore the realities of what less developed countries find fair in order to explicate demands of justice which are specific to the relationship between developed and less developed countries. If the thesis merely assigned moral duties to less developed countries without considering the realities of what less developed countries find fair, then the thesis would not be conducting a relational discussion. For this reason, although the thesis makes use of Brian Barry's position, the position is adapted in the sense that the realities of what less developed countries find fair is included. In this sense, Barry's notion of fairness is used to provide a blueprint for a normative relational discussion, which results in the formulation of a moral demand of climate justice. This demand is not based on a purely moral discussion, but on an empirical discussion of the reality of the relationship between developed and less developed countries that informs a moral discussion.

In order to ascertain what less developed countries would reasonably agree to, previous work on less developed countries' perceptions of fairness in the case of climate change will be briefly outlined below. According to Steven Vanderheiden, less developed countries have three main concerns related to the issue of fairness. It is important to reiterate that

Vanderheiden includes China, India, and Brazil in his conception of less developed countries, which implies that the three concerns he outlines speak to the broad category of less developed countries, and not merely the Least Developed Countries which are most vulnerable to climate change. According to Vanderheiden, the first concern less developed countries have relates to the idea that developed countries have contributed most to the climate change problem, and should therefore pay more towards the cost of combatting its effects.⁵⁵ This implies that less developed countries will perceive a distribution of benefits and burdens as unfair if these are not in line with historical contribution. Second, less developed countries believe that they face greater immediate problems that must be addressed before they can agree to help with climate change action.⁵⁶ According to Henry Shue, it is difficult to see why less developed countries should divert their attention from their own worst problems in order to help with problems that for them are far less immediate and deadly.⁵⁷ This implies that a distribution of benefits and burdens that includes less developed countries should consider the need to address urgent basic needs, because otherwise less developed countries cannot reasonably agree to it. Third, Vanderheiden explains that less developed countries believe that they should have a right to develop, and should therefore not have to cut their emissions as drastically as developed countries until such development is achieved.⁵⁸ This is a complex concern, because less developed countries should not have to accept a climate change deal where they are essentially blocked from developing, but they cannot be left out of the climate deal entirely, because universal participation is necessary.⁵⁹ To make matters more complicated, the developed countries will see little point in acting if the less developed countries are holding back.⁶⁰ It appears there needs to be a balance between the concern for development and the need for cutting emissions. In sum, the three main concerns of the less developed countries in terms of fairness are acceptance of responsibility by the rich, ensuring basic needs are met, and guaranteeing that there is an opportunity to develop. If these are the main concerns in terms of fairness, it seems that all three concerns must be addressed to make the distribution of benefits and burdens reasonably acceptable to less developed countries.

⁵⁵ Vanderheiden, St., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 67

⁵⁶ *Ibid.*

⁵⁷ Shue, H., 'Global Environmental and International Inequality' in *International Affairs*, 75 (1999), p. 543

⁵⁸ Vanderheiden, St., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 67

⁵⁹ *Ibid.*, p. 69

⁶⁰ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 90

It should be noted that some countries, particularly those classed as Least Developed Countries by the UNFCCC, would be more concerned about addressing urgent needs than having a right to develop, because they undoubtedly have greater urgent needs to address than BRICS countries, for example. Richer and advanced less developed countries, like China and Brazil, on the other hand, may be more concerned with having a right to develop, because these countries are well on their way to becoming developed countries, according to the BRICS categorization, and will feel strongly about not having this development impinged. Keeping these complexities in mind, the chapter now turns to discussing how these perceptions of fairness, which stem out of the relationship between developed countries and less developed countries, can be integrated into a conception of a distribution of benefits and burdens in the case of climate change. There are three existing positions on distributing benefits and burdens between states in climate ethics literature: Polluter Pays, Ability to Pay, or a mixture of both. Each of these positions will be assessed in turn. The assessment will concern to what extent each position is able to include the concerns of less developed countries outlined above. It will be argued that a mixed position is best able to accommodate less developed countries concerns, and therefore is best able to represent a distribution of benefits and burdens which is fair, in the sense that it can be reasonably accepted by all parties.

The Polluter Pays Principle

The Polluter Pays Principle, commonly referred to as the PPP, is based on examining who caused the problem, and using this information to determine who should pay (and how much) for climate change action. As Henry Shue explains, the PPP is based on a well-known conception of fairness, whereby we 'clean up our own mess.'⁶¹ The 'mess' created in climate change is high GHG levels, which must be lowered to protect the right to health of future generations, as explained above. According to the PPP, the countries that have emitted the most, and/or continue to emit the most, are responsible for paying for most of the damages caused by these emissions. Proponents of the PPP usually conclude that developed countries should bear most of the burdens of climate change due to their high GHG emissions.⁶² In this way, the PPP is based entirely on taking responsibility for high GHG emissions by paying to fix the problems associated with these emissions. The PPP has an important advantage: it has been strongly defended by China, Brazil, and other less

⁶¹ Shue, H., 'Global Environmental and International Inequality' in *International Affairs*, 75 (1999), p. 533

⁶² Gardiner, S. M., 'Ethics and Global Climate Change' in *Ethics*, 114 (2004), p. 579

developed countries in climate change negotiations.⁶³ This implies that the less developed countries perceive it to be fair. This is unsurprising, because the PPP seems to fit in with the three concerns of less developed countries outlined above. The PPP explicitly places responsibility on developed countries, which allows less developed countries to address urgent needs because they are not required to act on climate change, and also allows these countries to develop without being burdened by costs, because they are not expected to pay for emissions reductions, unless their emissions reach a certain level.

However, the PPP could be considered to be unfair by some high emitting less developed countries because there is not a perfect correlation between high emissions and wealth, and requiring countries to pay in proportion to their emissions may perpetuate the poverty of some and reduce others to poverty. For example, China or India, countries which have high emissions (both countries were top three emitters in 2014),⁶⁴ may not have the resources to pay for damages caused by these emissions because their level of wealth is not high enough to pay for damages.⁶⁵ Simon Caney therefore believes it would be a mistake to determine who should bear the burden of climate change in isolation from an analysis of economic resources.⁶⁶ This argument suggests that the PPP may be too simplistic, and result in a distribution of benefits and burdens which cannot be reasonably agreed to by all parties. If high emitting less developed countries are called on to pay for lowering emissions, and this results in them not being able to address urgent needs of their population, or to continue their development, because the cost of lowering emissions is too high, then it would be difficult for these countries to reasonably accept the distribution of benefits and burdens implied by the PPP. For this reason, the PPP arguably does not represent a useful model for the fair distribution of benefits and burdens between developed countries and less developed countries, because basing distribution of pollution may not be reasonably accepted by all. The chapter will now examine another position, the Ability to Pay Principle, in order to assess whether it is better suited to addressing the three less developed countries concerns outlined above.

⁶³ Page, E., 'Give it Up for Climate Change: a Defence of the Beneficiary Pays Principle' in *International Theory*, 4 (2012), p. 305

⁶⁴ <http://www.statista.com/statistics/271748/the-largest-emitters-of-co2-in-the-world/>

⁶⁵ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 212

⁶⁶ *Ibid.*, p. 213

The Ability to Pay Principle

The Ability to Pay Principle, commonly referred to as the ATP, asserts that the responsibility for addressing climate change should be borne by the wealthy, and, moreover, that this responsibility should increase in line with the agent's wealth.⁶⁷ The key difference between the PPP and the ATP is that the ATP is indifferent to who caused harm and focuses instead on who can rectify harm.⁶⁸ The ATP has several important advantages relating directly to the concerns of less developed countries outlined above. For this reason, it seems plausible that less developed countries would find the ATP fair. First, the responsibility to pay for climate change will fall mostly on the developed countries because they are the wealthiest countries, which is the first concern of the less developed countries, namely that developed countries are held to account for climate change. Secondly, if the responsibility to pay falls on a less developed country, this will only be when this country has the ability to pay. If a country is wealthy enough to pay for climate change action, or to reduce emissions, this seems to imply that other concerns, such as meeting the basic needs, may have already been met. Under the ATP, less developed countries will not be asked to pay until they are at a certain level of wealth, which is particularly important in the case of Least Developed Countries, which are vulnerable to climate change and do not have the resources to address the problem. This addresses the second concern of the less developed countries, namely that urgent needs must be addressed before climate change can be acted on. Finally, the fact that countries only have to pay when they are wealthy enough seems to imply that less developed countries would have time to develop to a certain point, at which they could begin to pay for climate change action. This addresses the third concern of the less developed countries which is that less developed countries have a right to develop. This is particularly important for richer less developed countries, who may feel that they have a right to develop to a certain level before being held accountable for climate change action. From the above, the ATP seems to be in line with what less developed countries consider fair, and what these countries could reasonably agree to.

However, the ATP suffers from a key disadvantage. Not taking levels of emissions into consideration implies that wealthy countries with low GHG emissions will be required to pay as much as wealthy countries with high GHG emissions. This could be perceived as unfair because wealthy countries which contribute to combatting the climate change problem by limiting emissions are not rewarded for this behavior, and are in fact treated in

⁶⁷ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 213

⁶⁸ *Ibid.*

the same manner as high emitting countries. This is an important weakness of the ATP because the thesis is concerned with a solution which can be reasonably accepted by all. It seems unreasonable for wealthy low emitting nations, such as Iceland (average of 6.2 metric tons of carbon per capita per year), to accept that they have to pay as much as rich polluting nations, such as the United States (average of 17.6 metric tons of carbon per capita per year),⁶⁹ with no consideration for the differences in their emissions levels. In addition, the ATP arguably does not provide an incentive for countries to lower emissions, because there is no reward for lowering emissions under this model. Instead, countries can simply 'pay their way' and not consider emissions at all, which seems counterproductive to the goals of lowering emissions worldwide. It was explained in Chapter One and Chapter Four that it is not possible to pay for climate change without lowering emissions, in the sense that not lowering emissions will eventually lead to irreversible damages which humans will not be able to adapt to. These criticisms of the ATP, along with the criticisms of the PPP, will be taken into account below, when arguing that a mixed approach is best able to represent a distribution of benefits and burdens which can be reasonably accepted by less developed countries and developed countries.

A Mixed Approach

There is no one name for a mixed approach, as each proponent has their own version of ATP-PPP combinations and offer various names for their approaches. The discussion below will refer to two of the most well-known mixed approaches advocated by Thomas Risse and Simon Caney. Risse suggests a mixed approach that is based on an index that measures per-capita wealth and per-capita emission rates, and then groups countries into categories depending on their combined index which weighs both criteria equally.⁷⁰ The amount of emissions reduction or payments towards climate action for which a country is responsible would be a function of this index.⁷¹ Under this approach, a number of countries would not incur any responsibility, because they are ranked too low according to either one or both of these criteria.⁷² To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for global adaptation costs, and countries of low wealth and high pollution will have to reduce their emissions as best possible, and only when they rise in wealth will they have to pay more towards climate change adaptation costs and further emissions reductions. Countries which have low

⁶⁹ <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC>

⁷⁰ Risse, M., 'Who Should Shoulder the Burden? Global Climate Change and Common Ownership of the Earth' in *Faculty Research Working Papers Series* (Harvard Kennedy School, 2008), p. 40

⁷¹ *Ibid.*

⁷² *Ibid.*

emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

This approach avoids the PPP's problem of requiring high polluting countries to lower emissions, even if these countries are not wealthy enough to be able to do so. Although some less developed countries have high emissions levels, they may not be able to afford to reduce emissions or pay for mitigation as easily as other countries. This may interfere with their ability to address basic needs of their populations, or to pursue development, which are two of the less developed countries concerns outlined above. At the same time, Risse's mixed approach strengthens the ATP because it acknowledges that some nations may be rich but have low emissions. As was discussed above, it is important to provide an incentive for countries with low emissions, and to treat them differently than countries with high emissions. Risse's mixed approach seems to have an advantage over the ATP in this regard, because his approach highlights the fact that countries with low emissions and high emissions should be differentiated in terms of responsibilities, and may therefore be perceived as fairer than an approach based solely on wealth. In this sense, the mixed approach Risse creates has the advantage of being fairer than either the ATP or PPP on its own, which is important because it may be more easily accepted by both developed countries and less developed countries.

However, there is a second mixed approach which has an important contribution to make in terms of addressing less developed countries' concerns. Simon Caney argues for an approach which recognizes a difference between (i) those whose wealth came about in ways which endangered the climate and (ii) those whose wealth came about in ways which did not endanger the climate.⁷³ He believes that countries that fall into category (i) should be contributing more to climate change costs.⁷⁴ This is in line with Risse's argument, because Risse argues that high polluting countries that are rich are responsible for both financial contribution and lowering emissions, whereas 'green' rich countries are only responsible for contributing financially. Interestingly, Caney qualifies his approach with the notion that a country should only bear the burden of climate change so long as doing so does not push that country beneath a decent standard of living.⁷⁵ This argument is useful because it seems to be particularly sensitive to the second and third concern of less

⁷³ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 215

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*, p. 218

developed countries, which are that less developed countries have urgent needs which have to be addressed before contributions to climate change are made, and that less developed countries should have the right to develop. If countries must only contribute so long as this does not push them beneath a decent standard of living, this seems to imply that basic needs must be met and that countries must be developed enough to be able to contribute so that their contributions do not result in substandard living conditions for their population. This seems to be especially fair to countries which face urgent needs, particularly those in the category of Least Developed under the UNFCCC, who would under Caney's model not be held to account for climate change action.

Overall, it seems that all the mixed approaches defended by Risse and Caney have advantages over the ATP and PPP, especially in terms of taking the concerns of less developed countries into account. As was argued above, a distribution of benefits and burdens is considered fair when all parties cannot reasonably reject a distribution. In order to meet this condition, there must be consideration of what less developed countries believe to be fair: the burden falling on developed states who are seen to have caused the problem, basic needs being met before any climate action is taken, and the right to develop being taken into account. However, as it is important that all states participate in climate action, the developed nations, especially those that are 'green,' should also find any climate action fair. After reviewing the PPP, ATP, and mixed approaches, it seems that a mixed approach is fairest for all countries. It was illustrated above that the ATP puts too much burden on wealthy 'green' countries, and the PPP has the potential to push high emitters with low wealth into poverty. The mixed approach arguably recognizes the concerns of both less developed countries and countries which have low emissions and high levels of wealth. Therefore, the global justice position on less developed countries will be based on a mixed approach. This approach will now be outlined below.

The two mixed approaches assessed above both have strong elements, which will be incorporated into the mixed approach defended in this thesis. This ensures that the thesis speaks to existing literature. Risse suggests measuring emissions output as well as per capita wealth in order to ascertain how much a country should contribute to climate change efforts, which has the benefit of being more likely to be perceived as fair the PPP and ATP approach, as was explained above. However, it is arguably useful to qualify such an index with Caney's assertion that countries should not be pushed under a decent

threshold of living by their climate change reduction efforts, which was illustrated to be a useful argument in terms of incorporating concerns of less developed countries, and in particular Least Developed Countries. These elements – the basic notion of using both wealth and emissions levels, Risse’s index model, and Caney’s caveat – will be used as the building blocks of the mixed approach defended in this thesis.

This mixed approach will be referred to, for the rest of the thesis, as the Polluter’s Ability to Pay approach, or PATP model. Under the PATP model, countries which have high levels of emissions and high levels of wealth are responsible for reducing their pollution and pay for climate change action, and countries of low wealth and high pollution are responsible for reducing their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living. Countries should have to pay for climate change costs and reduce emissions only when they are well off enough to do so. Furthermore, countries which have low emissions and low wealth should be excluded from responsibility, and those with low emissions and high wealth should be asked to contribute financially but not lower their emissions. This is a theoretical model of the distribution of benefits and burdens of climate change which attempts to incorporate notions of fairness as explicated by less developed countries in order to represent a fair distribution of benefits and burdens.

The PATP model also attempts to capture the complexity of the category ‘less developed country.’ Although this category is very broad, the PATP model points out two important factors which can help to clarify which less developed countries may be more responsible for sharing the burdens of climate change than others, by virtue of their level of wealth and their level of emissions. If the thesis simply argued that less developed countries should be included in climate change action, this would not be very exact, since less developed countries account for almost 150 countries of the world according to the UNFCCC. Defining the PATP model enables a discussion which can account for the differences between these countries. The model can accommodate the idea that some richer less developed countries must be held to account for their emissions, while at the same time stressing that Least Developed Countries should bear no responsibility until their level of wealth and emissions meets a level which implies responsibility.

Finally, it should be noted that the PATP model cannot guarantee that the concerns of less developed countries are taken into account. It is merely a model of distribution which

attempts to capture these concerns. As will be illustrated in Chapter Seven and Eight, less developed countries, and in particular Least Developed Countries, are often not included in climate change decision making processes, which can often mean that their concerns are not taken to consideration. This is problematic from the perspective of fairness, because the distribution of benefits and burdens must be one all can reasonably agree to. If Least Developed Countries are unable to express their concerns, then it is questionable whether these countries can be said to reasonably accept the distribution that is decided on their behalf. For this reason, the requirement that less developed countries' concerns must be taken into account will be left explicit so that the evaluation of current practice can include a thorough discussion on the extent to which these concerns are being addressed.

The stance on less developed countries is therefore as follows: in line with the definition of fairness outlined above, the concerns of less developed countries must be properly considered in climate change action in order to ensure that they can reasonably accept the distribution of benefits and burdens associated with climate change. Furthermore, the distribution of benefits and burdens in global climate change action should be based in the PATP model. This is the second explicit demand of climate justice that must be met under the position defended in this thesis. The chapter now turns to the final issue to be included in the justice position defended in this thesis, namely who makes up the 'collective' in collective action.

Collective Action

The chapter has now defined a non-relational minimum which cannot be crossed by developing a demand which concerns what future generations are entitled to, and used the relational side of the climate justice approach to develop a demand that is relevant to the relationship between developed countries and less developed countries. The chapter now moves onto defining a third and final demand, which concerns who makes up the 'collective' in collective action. Both scientific reviews from the IPCC and cosmopolitan climate change literature heavily emphasize collective action. But who is this 'collective' in collective action? Or more precisely, who is morally responsible for what actions in the case of climate change? The discussion above concerned the distribution of benefits and burdens between developed countries and less developed countries, which has clarified the responsibility of states, who make up an important part of the 'collective' in collective action. However, this final section of the chapter will make the case that the empirical

realities of the climate change problem imply that responsible actors making up the 'collective' in collective action extend beyond states. It will be put forward that the responsible 'collective' should include all capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in.

This conception of collective responsibility will stem out of a relational discussion of the relationships between actors causing climate change and suffering from the consequences of climate change. It was explained in Chapter Two that climate change is an issue of global justice because it places 'everyone, everywhere' in a situation of mutual dependency: there is only one atmosphere, and multiple actors, within and outside of states, contribute to changes in global climate, albeit with varying effects in different places, regardless of where they are located.⁷⁶ This seems to imply that climate change is as a cross-level distributive justice issue among *all actors* causing and suffering from climate change impacts.⁷⁷ It is therefore important to discuss who these actors are, and how they relate to one another. This relational discussion will take place below, when making the case for a conception of a responsible 'collective' which encompasses all actors capable of affecting the climate change problem. It is important to stress that the stance on collective action defended here faces potential criticisms which stem from both practical and moral perspectives. Four of these criticisms will be outlined below. The stance on collective action will be defended as each challenge is addressed. The first criticism that will be addressed is that individuals cannot affect climate change, the second is that individuals may be able to affect climate change, but are not able to cause harm, and the third is that individual responsibility distracts from state responsibility. Finally, the criticism of individual responsibility from the Foucauldian school of governmentality will be addressed.

Criticism One: Individuals Cannot Affect Climate Change

The position on collective action that is defended here is that all capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, should be held responsible for climate change action. A potential criticism against this position is the practical criticism that individuals cannot affect climate change, advocated by Gil Seyfang. Seyfang argues that individuals do not have the opportunity to make a significant impact on emissions levels. She explains that

⁷⁶ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 153

⁷⁷*Ibid.*, p. 116

this is because individual consumers are only able to choose between options which are available to them. Some options are simply not available, for example clean, efficient, affordable and safe public transport.⁷⁸ In other words, Seyfang argues that consumers are effectively locked into particular consumption patterns.⁷⁹ In addition, decisions which make a major impact on emissions are made on a societal, not individual level.⁸⁰ For example, decisions on building and maintaining roads, hospitals, schools, and equipping the military account for half of all consumption in Western Europe.⁸¹ Seyfang therefore concludes that individuals are not only locked into consumption patterns, but that these consumption patterns have a negligible effect on emissions.

Seyfang makes a valuable argument which requires a response. If individuals cannot make a meaningful impact on emissions levels because they are locked into consumption patterns, does this mean they should not be held responsible for mitigation? And what does this imply for the responsibility of other actors whose behavior has a substantial effect on emissions? In an answer to the first question, it will be argued below that if certain individuals are able to change their level of emissions within available consumption patterns, they must be held morally responsible for doing so. The answer to the second question will link to this argument. It will be argued that other actors, such as corporations, international institutions, and sub-state authorities, and states should also be held responsible if they have an effect on emissions and are capable of changing their level of emissions. To begin answering the above questions, it is important to note that Seyfang undoubtedly highlights an important fact: individual consumption is by no means the most significant cause of climate change, and individuals are locked into certain consumer patterns. However, it would be difficult to argue that no individual has an impact on climate change, and that no individual is capable of changing their behavior in order to reduce this impact within existing consumption options. In fact, there have been studies which reveal exactly the opposite – there are individuals who have a significant impact on emissions, and at the same time have the capability of changing their consumption patterns.⁸²

⁷⁸ Seyfang, G. 'Shopping for Sustainability: Can Sustainable Consumption Promote Ecological Citizenship?' in *Environmental Politics* 14 (2005), p. 296

⁷⁹ *Ibid.*, p. 297

⁸⁰ *Ibid.*, p. 296

⁸¹ *Ibid.*, p. 297

⁸² Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 122

For example, Paul Harris has conducted research into the detrimental effects affluent individuals have on climate change. According to Harris, there are hundreds of millions of well-off individuals living within, and more importantly, outside of developed states who are capable of affecting GHG emissions levels.⁸³ He concentrates mainly on individuals in less developed countries, as most climate change action is geared towards responsibilities of developed countries, meaning that the individuals in less developed countries are largely under no obligation to lower emissions. Harris argues that this is problematic because pollution of the atmosphere is increasingly caused by the growing number of rich people living in less developed countries.⁸⁴ Harris makes use of a number of previously conducted studies to illustrate that these individuals are producing GHGs through excessive consumption at a pace and scale never experienced in human history.⁸⁵ For example, individuals living within BRICs countries like China and India together account for over one fifth of the 'global consumer class,' a number that is approaching 400 million and that exceeds the number of people living in Western Europe.⁸⁶ In India in particular, new consumers make up one eighth of the population, possess two fifths of purchasing power and account for fifteen times the energy consumption of the remaining country's population.⁸⁷ Harris explains that this is in part why some studies estimate that developing countries now produce half of the world's emissions.⁸⁸ Harris argues that these 'unregulated' individuals must be held responsible for their emissions levels in order to keep global emissions levels in check.

Harris's research reveals two important points. The first is that individuals, and in particular rich individuals, have a significant effect on climate change. Harris illustrates, with the help of numerous studies, that 'voluntary' individual consumption patterns are having a detrimental effect on emissions levels. As he puts it, 'affluence is the primary and disproportionate cause of global environmental degradation.'⁸⁹ Importantly, Harris makes the argument that the consumption patterns of the wealthy, in particular flying, eating meat, or buying new products such as cars every year, are all behaviors that can be cut back on, which implies that individuals are capable of mitigating climate change through

⁸³ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. vii

⁸⁴ *Ibid.*, p. 121

⁸⁵ *Ibid.*, p. 122

⁸⁶ *Ibid.*, p. 124

⁸⁷ *Ibid.*, p. 125

⁸⁸ *Ibid.*, p. 121

⁸⁹ *Ibid.*, p. 130

behavioral change.⁹⁰ This is a direct response to Gil Seyfang, who argues that individual consumption is locked into specific patterns, and that individuals therefore only have a marginal effect on climate change. Although this may be partly true, as will be explained below, it would surely be difficult to argue that individual consumers have *no* effect on climate change, and that there is *no* possibility for changing behavior, especially in the face of evidence Harris provides.

The second point Harris's research reveals is that there is a differentiation to be made between individuals, because some individuals have a more significant impact on emissions than others, and some individuals are more capable of change than others. According to Harris, this should have an effect on which individuals are held responsible, which is why he concentrates on wealthy individuals. This could be referred to as an argument from capability – those individuals who are more capable of mitigating climate change have the moral responsibility to do so. This type of moral argument has famously been made by Peter Singer, who argues that if it is 'within our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, then we ought, morally, to do it.'⁹¹ Singer illustrates his argument by explaining that if someone is walking past a shallow pond and sees a child drowning in it, they ought to wade in and pull the child out, even if this will mean getting their clothes muddy.⁹² The muddy clothes are not of comparable moral importance to the death of a child in this example. In the case of climate change, a wealthy individual buying a new car every year, or flying every month, or eating meat for every meal, is by no stretch of the imagination equally morally important to preserving the right to health of potential climate change victims, which is a consequence of excessive consumption. Being healthy enough to lead a fulfilling life is not morally comparable to the happiness that may result in owning a new car every year, or eating meat for every meal. Health is a basic human need, whereas owning a number of luxury cars may bring satisfaction or happiness, but is not essential to living a life which is not consumed with the struggle to survive.

In addition, it is surely within the power of a rich individual to reduce their meat consumption, change their luxurious shopping habits, or reduce their travel for pleasure without sacrificing something as morally important as the violation of the human right to

⁹⁰ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 124

⁹¹ Singer, P., 'Famine, Affluence, and Morality' in *Philosophy and Public Affairs* 1 (1972), p. 231

⁹² Ibid.

health of millions. Not eating meat a few times a week may marginally reduce a consumer's choice, but this is morally incomparable to suffering from a debilitating illness. Although Seyfang makes an excellent point about consumers only being able to choose from available alternatives, and this is undoubtedly problematic, it is important to note that even within these locked choices, consumers can make a difference to global emissions levels through their behavior, for example by eating less meat or flying less. According to Singer's logic, this would imply that wealthy individuals, who are capable of mitigating climate change and therefore protecting the right to health of potential climate change victims, should be held responsible for doing so. This is the response to the first question posed above: if individuals are locked into certain consumption patterns, and can only have a marginal effect on emissions, does this mean they should not be held responsible? The answer is no. It may be true that individuals are not the main cause of climate change, and that their choices are somewhat restricted, but this does not negate the fact that some individuals, especially the wealthy, have a detrimental effect on emissions, are capable of mitigating climate change, and are therefore morally responsible for doing so.

However, the second question remains unanswered. What does the above argument imply for responsibility for other actors whose behavior has an effect on emissions? Individual consumption only results in a part of the emissions which cause climate change. There are other actors which emit more than individuals, for example corporations or cities. A Greenpeace study found that Shell emits more than Saudi Arabia, Amoco more than Canada, Mobil more than Australia, and BP, Exxon and Texaco more than France, Spain, and the Netherlands.⁹³ Furthermore, cities are home to half of the world's population, and consume over two thirds of the world's energy and account for more than 70% of carbon emissions.⁹⁴ The argument from capability made above can be used to hold these types of actors to account for their high emissions. Simon Caney has made an argument along these lines – as he believes that not only wealthy individuals, but all agents who contribute to emissions and have the means of lowering these should be held accountable for going so,⁹⁵ including firms, sub-state political authorities, and international financial institutions.⁹⁶ This is in line with the argument from capability made above; it is simply being extended to all capable actors. Extending the argument from capability is especially useful because it

⁹³ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 2

⁹⁴ C40, 'The Cities' <http://www.c40.org/cities> [accessed 04.12.2014]

⁹⁵ Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 756

⁹⁶ Caney, S., 'Climate Change and the Duties of the Advantaged' in *Critical Review of International Social and Political Philosophy*, 13 (2010), p. 219

allows actors which are capable of having a greater impact on emissions levels than individuals, for example corporations or cities, to be held morally accountable. For this reason, not only individuals, but corporations, sub-state political authorities, and international financial institutions, and states are included in the conception of actors who are responsible under 'collective action.'

Importantly, Caney suggests that if these actors are not only high emitters, but affluent, they have the capability of financially contributing to climate change efforts, such as scientific research into climate science, or adaptation measures, and should therefore be accountable for doing so.⁹⁷ This argument for financial contribution is in line with capability logic – spending money on preventing future human rights abuses (specifically violations of the right to health in the case of climate change) is morally required of agents capable of doing so, as long as spending funds does not result in a moral harm equal to the violation of the human right to health. For this reason, the argument that agents who are capable of contributing financially to climate change mitigation/adaptation should be held responsible for doing so is incorporated into the conception of responsible agents under 'collective action.' The stance on collective action (or more precisely who is responsible for collective action) in this thesis is therefore that agents, including individuals, corporations, sub-state entities, international institutions and states who are capable of financially contributing and/or capable of lowering emissions should be held morally responsible for doing so, according to their capability, and as long as this does not result in a moral harm equal to the violation of the right to health of future generations.

It is important to note about the stance on 'collective action' outlined above emphasizes differentiation between agents. Each agent should be held accountable according to capability – not every individual, corporation, sub-state entity, international institution or state is capable of the same amount of emissions reduction or financial contribution. It is also important to note that the conception of actors being responsible for lowering emissions and/or contributing financially is in line with the logic of the PATP model outlined in the previous section. However, the PATP model applies specifically to states, because it is based on previous conceptions of state responsibility, the PPP and the ATP. The conception on collective action here is in line with the logic of the PATP, but must be defended separately, because it is not commonly assumed that actors outside of states have

⁹⁷ Caney, S., 'Cosmopolitan Justice, Responsibility, and Global Climate Change' in *Leiden Journal of International Law*, 18 (2005), p. 755

responsibility to act on climate change. This is why the stance on collective action is enclosed in a separate demand of justice. The chapter now turns to the second criticism of the position on collective responsibility defended here: namely the moral criticism that individuals are not capable of causing harm in the case of climate change.

Criticism Two: Individuals Cannot Cause Harm

The second potential criticism of assigning responsibility to agents outside of states which will be addressed in this section is put forward by Sinnott-Armstrong, who claims that although it is indisputable that some individuals can affect emissions levels, it is not possible to assign these individuals moral responsibility to refrain from emitting under any existing moral principles. In order to make his case, Sinnott-Armstrong goes through a series of existing moral principles to illustrate how they do not apply in the case of climate change. He orders existing moral principles into three categories: actual act, internal, and collective. The first 'actual act' principle he examines is the harm principle, which states that we have a moral obligation not to perform an act that causes harm to others.⁹⁸ Sinnott-Armstrong argues that although one act, such as driving for pleasure on a Sunday, may contribute to climate change, the act itself does not directly harm anyone, because climate change only happens when emissions accumulate over time. In this way, it is not clear which action does what harm, and there is no direct link between action and harm.⁹⁹ In an effort to explore the harm principle further, Sinnott-Armstrong outlines the indirect harm principle, which states we have a moral obligation not to perform an act that causes harm to others indirectly.¹⁰⁰ However, he argues that the indirect harm principle suffers from similar problems to the harm principle, because individual action is not enough to cause harm, even indirectly: emissions must accumulate over time to cause harm, and it is not clear that one action can cause indirect harm.¹⁰¹ Finally, Sinnott-Armstrong explores the contribution principle, which states that we have a moral obligation not to make problems worse.¹⁰² However, he explains that this is also problematic because the small act of driving does not make climate change worse, as no individual person or animal will be worse off because of it.¹⁰³ Sinnott-Armstrong concludes that the problem with 'actual act' principles is that climate change occurs on such a massive scale that an individual driving

⁹⁸ Sinnott-Armstrong, W., 'It's Not My Fault: Global Warming and Individual Moral Obligations' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 334

⁹⁹ *Ibid.*, p. 335

¹⁰⁰ *Ibid.*, p. 336

¹⁰¹ *Ibid.*

¹⁰² *Ibid.*, p. 337

¹⁰³ *Ibid.*

makes no difference to the welfare of anyone.¹⁰⁴ He concludes that actual act principles cannot be applied to ground moral responsibility in the case of climate change.

After dismissing the applicability of actual act principles, Sinnott-Armstrong moves onto internal principles. He examines Kant's universalizability principle, which states that we have a moral obligation not to act on any maxim that we cannot will to be a universal law.¹⁰⁵ However, Sinnott-Armstrong believes that the maxim, or intention, of a Sunday driver would not be to expel carbon, because the motivation is to have fun, and that can be achieved without carbon emissions, if it were possible.¹⁰⁶ Therefore Kant's principle cannot be applied to climate change, and Sinnott-Armstrong rejects its applicability to climate change. Next, Sinnott-Armstrong outlines the doctrine of double effect, which states that individuals have the moral obligation not to harm anyone intentionally.¹⁰⁷ He believes that this principle cannot ground moral responsibility of individuals, because individuals who emit GHGs, for example through driving, do not intend to harm, and do not cause actual harm to anyone.¹⁰⁸ He therefore also rejects this internal principle. He concludes that internal moral principles cannot be applied to ground moral responsibility of individuals in the case of climate change.

Finally, Sinnott-Armstrong turns to collective principles. He examines the group principle, which states that we have a moral obligation not to perform an action if this action makes us a member of a group whose actions together cause harm.¹⁰⁹ However, Sinnott-Armstrong finds that this principle is difficult to apply in the case of climate change because it does not seem immoral to do what others do if this will not change the action of others, because the harm will occur with or without individual action.¹¹⁰ He explains that because an individual cannot change what the group does, it may be morally good or ideal to protest what the group does, but it does not seem morally obligatory.¹¹¹ He then examines the Ideal Law principle, which states that we have a moral obligation not to perform an

¹⁰⁴ Sinnott-Armstrong, W., 'It's Not My Fault: Global Warming and Individual Moral Obligations' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 337

¹⁰⁵ *Ibid.*, p. 338

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*, p. 340

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

action if it ought to be illegal.¹¹² Sinnott-Armstrong argues that this principle does not apply to the climate change problem because it is not clear that GHG emissions should be illegal, since this would be impossible, because even the act of breathing results in emissions.¹¹³ He therefore concludes that collective principles cannot be applied to ground moral responsibility of individuals in the case of climate change. After rejecting the applicability of actual act, internal, and collective principles, Sinnott-Armstrong concludes that there are no moral obligations on individuals to refrain from emitting GHGs according to well-known moral principles. Sinnott-Armstrong provides a thorough case against holding individuals morally responsible for climate change action which must be taken seriously and responded to. There are two possible responses to Sinnott-Armstrong's argument, both of which will be outlined below. The first response is to question whether it is morally important that actual act and internal principles do not apply to the case of climate change. The second response is to question Sinnott-Armstrong's conception of collective principles.

As was illustrated above, Sinnott-Armstrong outlines actual act and harm principles and explains that these are not applicable in the case of climate change because individuals do not cause a moral harm with their individual actions and do not intend to do harm. The question to ask is whether it matters, morally, that these existing moral principles are not applicable in the unique case of climate change. It has been argued above that some individuals are capable of affecting climate change and should therefore be held morally responsible. Does the fact that they do not cause direct harm, or do not intend to do harm, make a moral difference? Steven Vanderheiden is not convinced that it does. Vanderheiden argues that if we were to apply common moral principles of harm and fault (what Sinnott-Armstrong describes as actual act and internal principles) to climate change, this would ban nearly all human activity, including exhaling, which would be absurd.¹¹⁴ However, Vanderheiden explains that although conventional moral principles cannot be applied to assign individual moral responsibility, this does not mean it is morally right to assign no moral blame to individuals,¹¹⁵ as Sinnott-Armstrong does. According to Vanderheiden, ignoring the moral nature of individual acts which cause climate change is wrong for both practical and moral reasons.

¹¹² Sinnott-Armstrong, W., 'It's Not My Fault: Global Warming and Individual Moral Obligations' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 339

¹¹³ *Ibid.*

¹¹⁴ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 162

¹¹⁵ *Ibid.*

His practical concern is that this may lead to individuals to stop recycling or to increase driving because they will believe that they have no moral responsibility to alter their behavior.¹¹⁶ Vanderheiden argues that we cannot afford to think this way because it is too dangerous, because of the urgency of abating climate change.¹¹⁷ His moral concern is that ignoring individual responsibility as Sinnott-Armstrong does may cause an unfair distribution of blame. Some individuals may be more to blame for climate change than others because they cause higher GHG emissions, but these individuals may live in states where they are not required to curb GHG emissions under current climate change regulation.¹¹⁸ Similarly, some individuals in rich countries may be less to blame as they emit a small amount, but these individuals may still be asked to contribute towards preventing climate change, as they live in a rich country which is under regulation. Vanderheiden explains that if individual moral responsibility is not defined, this will impose a burden on those who may not have done anything wrong, and let those who are responsible go unpunished, which seems to violate a basic precept of redistributive justice.¹¹⁹ Furthermore, individuals in states which are not regulated will continue to not be held to account, which is morally objectionable because, as was argued above, all individuals who are capable of lowering emissions and/or contributing financially are morally required to do so.

Vanderheiden, in other words, argues that the fact that existing moral principles of blame and fault do not apply to the case of climate change does not imply that there should be no moral individual responsibility. Instead, Vanderheiden seems to imply that climate change is a morally unique situation which challenges both conventional ethical theory and entrenched moral norms. This illustrates that while Sinnott-Armstrong makes an interesting case, his conclusions are too hastily drawn. Sinnott-Armstrong establishes that existing moral principles of fault and harm do not apply, and concludes that this implies no individual moral responsibility. In contrast, Vanderheiden explores whether there could be another moral reason for individual responsibility which is unique to the situation of climate change. In other words, Vanderheiden treats climate change as morally and empirically unique, and illustrates why individual moral responsibility is important beyond general moral principles. Vanderheiden's argument that a basic precept of redistributive

¹¹⁶ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 166

¹¹⁷ *Ibid.*, p. 167

¹¹⁸ *Ibid.*, p. 171

¹¹⁹ *Ibid.*

justice would be violated without a conception of individual moral responsibility is especially important. Vanderheiden illustrates that a conception of individual responsibility is important for a climate justice account. It is therefore tempting to side with Vanderheiden and dismiss Sinnott-Armstrong's argument outright. However, there is a second possible response to Sinnott-Armstrong, which involves questioning his conception of existing collective principles.

Even if it were accepted that there is no moral responsibility for individuals in the case of climate change because individuals cannot cause direct harm and do not intend to do harm, it is undeniable that individuals are causing harm to the climate collectively. Sinnott-Armstrong rejects collective principles, but his dismissal of these may be premature, as is pointed out by Anders Sandberg. Sinnott-Armstrong argues that collective principles do not apply to the case of climate change, because it is not immoral to do what others do as long as others' behavior cannot be changed, because the harm will occur with or without a particular individual action.¹²⁰ Sandberg argues that Sinnott-Armstrong is mistaken, and that in the case of climate change 'we have a *collective* obligation to change *our ways*.'¹²¹ Sandberg believes that 'all drivers and flyers ought to reduce this behavior, because their collective behavior is currently causing a threat of climate change.'¹²² In other words, although individual acts do not cause direct harm, collectively these acts do cause harm, and this raises an obligation to change individual behavior.

This argument is very similar to one made by Thomas Pogge. Pogge argues that if individuals are part of an institutional system or structure that causes moral wrongs to occur, they have a moral obligation to rectify these wrongs.¹²³ He claims that in the case of global poverty, affluent and powerful individuals have a significant impact upon living conditions elsewhere in their everyday actions, and should be held to account for these actions because they are part of a wider system of harm.¹²⁴ In the case of climate change this would imply that although it may not be possible to argue that an individual causes direct harm to another individual through an act such as driving, or in fact intends to do

¹²⁰ Sinnott-Armstrong, W., 'It's Not My Fault: Global Warming and Individual Moral Obligations' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 340

¹²¹ Sandberg, K., 'My Emissions Make No Difference: Climate Change and the Argument from Inconsequentialism' in *Environmental Ethics*, 33 (2011), p. 241

¹²² *Ibid.*, p. 242

¹²³ Pogge, T., *Realizing Rawls* (London: Cornell University Press, 1989), p. 277

¹²⁴ *Ibid.*, p. 274

harm, the individual is nonetheless part of, and indeed contributing to, a wider system of harm, and therefore has a moral responsibility for the harm caused. Pogge's argument implies that Sinnott-Armstrong's dismissal of collective principles is arguably too hasty, as an existing collective moral principle, defended by Pogge, clearly points to a moral obligation of individuals in the case of climate change. Pogge's moral principle offers a firm reply to the Sinnott-Armstrong's argument that 'it may be morally good or ideal to protest what the group does, but it does not seem morally obligatory.'¹²⁵ What this implies is that Sinnott-Armstrong's argument about lack of moral responsibility of individuals in the case of climate change rests on a false assumption, namely that there are no existing moral principles which can be applied to ground individual responsibility. For this reason, and furthermore as a result of the fact that climate change is a morally unique situation as argued above, Sinnott-Armstrong's argument against the moral responsibility of individuals will be dismissed at this point in the thesis. The chapter maintains that capable agents, including individuals, corporations, sub-state entities, international institutions and states should be held morally responsible for lowering emissions and/or contributing financially to mitigation and adaptation efforts according to their capability. In order to strengthen this position further, the chapter now turns to the third possible criticism against this conception of responsibility, namely that individual responsibility distracts from state responsibility.

Criticism Three: Individual Responsibility Distracts from State Responsibility

A third potential criticism of the position on collective responsibility taken in this thesis is the argument that placing responsibility on actors outside of the state amounts to a distraction from state responsibility and discourages political action. This type of argument can be found in the work of Jennifer Kent, Michael Maniates, and Gil Seyfang, and will be outlined below. Maniates, Kent, and Seyfang all highlight the potential dangers of individualized responsibility for climate change action. Maniates, for example, argues that the individualization of responsibility focuses on the person as consumer rather than citizen, and positions the individual within the comfort zone of consumerism, diverting people from more important environmental and citizen-led political action.¹²⁶ Jennifer Kent agrees with this assessment, and explains that placing responsibility on individuals means that

¹²⁵ Sinnott-Armstrong, W., 'It's Not My Fault: Global Warming and Individual Moral Obligations' in *Climate Ethics – Essential Readings*, eds. Gardiner, S. M., Caney, S., Jamieson, D., and Shue, H. (Oxford: Oxford University Press, 2010), p. 340

¹²⁶ Maniates, M., *Confronting Consumption* (Cambridge: Cambridge University Press, 2002), p. 58

opportunities for citizen-led action are lost.¹²⁷ Her evidence for this comes in the form of studies which illustrate that the growing sense of urgency surrounding the effects of climate change is failing to translate into an international groundswell of socially and politically engaged public citizens.¹²⁸ For example, in one study conducted in the United States and United Kingdom, 75% of individuals stated that they were concerned about global warming, but only 9% indicated both concern and willingness to take action.¹²⁹ Kent believes that this may be down to individual actors feel their actions are futile in the face of climate change.¹³⁰ In other words, individual responsibility makes individuals feel as if they should act, but at the same time makes them feel their actions are futile, which renders them unwilling to take action. What Kent is arguing is that individual responsibility is not only a distraction from state responsibility, but demotivates citizens from action. Finally, Gil Seyfang makes a very similar case. She explains that placing responsibility in the hands of individuals may imply that there is little room to ponder the role of the state.¹³¹ In other words, individual responsibility serves as a distraction from the responsibility of agents which are capable of affecting change.

The criticism that individual responsibility may demotivate individuals, and cause a distraction from political action and state responsibilities, is an important argument worth considering. If citizens feel their actions are futile and therefore do not engage in political action, and at the same time states are not held to account, and therefore fail to act, this will result in a lack of action on climate change on the state and individual level. It may therefore seem that the argument made by Maniates, Kent, and Seyfang is quite detrimental to the conception of collective responsibility defended in this chapter. However, there are two possible responses to the criticism that individual responsibility is a distraction from state responsibility. The first is to question whether individual responsibility exclusively leads to lack of political action and distraction from state responsibility. The second response is to explain that state responsibility and other actor's responsibility are not mutually exclusive. These two responses will be outlined below.

¹²⁷ Kent, J., 'Individualized Responsibility and Climate Change: If Climate Protection Becomes Everyone's Responsibility, Does It End Up Being No-One's?' in *Cosmopolitan Civil Societies Journal*, 1 (2009) p. 132

¹²⁸ *Ibid.*, p. 136

¹²⁹ *Ibid.*, p. 142

¹³⁰ *Ibid.*, p. 144

¹³¹ Seyfang, G. 'Shopping for Sustainability: Can Sustainable Consumption Promote Ecological Citizenship?' in *Environmental Politics* 14 (2005), p. 298

Kent, Maniates, and Seyfang all argue that individual responsibility discourages individuals from taking political action, and therefore distracts from state responsibility. However, it is questionable whether this is always the case. As Kent herself points out, there has been an increase in the number of social and political movements focusing on climate change organized by individuals. Kent explains that there has been a burgeoning of over a hundred local community climate action groups in Australia over recent years.¹³² Interestingly, Kent does not argue that this is despite feelings of individual futility, but that these feelings of futility *cause* dissatisfaction with continuing international government inaction.¹³³ These feelings of dissatisfaction, in turn, *cause* individuals to take political action: individuals recognizing their inability to effect global change through their individual agency leads to individuals increasingly to call on their governments to act.¹³⁴ In other words, the very feelings of futility that supposedly mute political action are having the opposite effect, and are resulting in increased political action by individuals. Individuals seem to be increasingly aware of the fact that states could be doing more about climate change. In reaction, individuals are taking action on climate change within their community and calling on their government to act. It should be noted that this does not apply to all individuals, and Kent points out that individuals who take political action are still in the minority. Nevertheless, it is worthwhile to stress that individual responsibility does not exclusively lead to lack of political action.

In terms of distracting from state responsibility, Peter Singer has made the case that individuals taking responsibility for issues does not distract from state responsibility, but rather encourages states to take responsibility. His argument concerns global poverty and is not specific to climate change, but is nevertheless highly relevant here. Singer explains that there is an argument which claims that overseas aid should be a government's responsibility, and that therefore one ought not to give to privately run charities. Giving privately, it is said, allows the government to escape their responsibilities.¹³⁵ Singer has little time for this type of argument. He explains that this argument seems to assume that the more people there are who give to privately organized famine relief funds, the less likely it is that the government will take full responsibility for such aid.¹³⁶ However, he believes that this assumption is unsupported, and furthermore not plausible. Singer

¹³² Kent, J., 'Individualized Responsibility and Climate Change: If Climate Protection Becomes Everyone's Responsibility, Does It End Up Being No-One's?' in *Cosmopolitan Civil Societies Journal*, 1 (2009) p. 146

¹³³ *Ibid.*

¹³⁴ *Ibid.*, p. 143

¹³⁵ Singer, P., 'Famine, Affluence, and Morality' in *Philosophy and Public Affairs* 1 (1972), p. 239

¹³⁶ *Ibid.*

believes the opposite view is true, namely that if no one gives voluntarily a government will assume that its citizens are uninterested in famine relief and would therefore refrain from giving more aid.¹³⁷ In other words, citizens expressing interest by taking individual action sends a signal to governments that citizens care about a particular problem, and encourages governments to take more action in order to garner support from citizens. A lack of individual action would result in the opposite effect.

This is an interesting point. In the case of climate change, this would seem to imply that individual action on climate change will encourage states to act, instead of providing a distraction from state responsibility. This is a direct counterargument to Kent, Maniates, and Seyfang. If notions of individual responsibility cause individuals to act on climate change, governments will see that citizens care about the cause of climate change, and therefore be motivated to act on these concerns. Furthermore, as Kent illustrates, individuals who are frustrated with their lack of impact are increasingly taking political action, which adds to the pressure on states to act. For this reason, it is tempting to dismiss the argument that individual responsibility discourages political action and distracts from state responsibility at this point. However, there is more to be said on the matter. Kent, Maniates and Seyfang make an excellent point that states have a responsibility which must not be distracted from. This concern will be addressed below.

The conception of collective responsibility defended in this chapter applies to individuals, corporations, sub-state entities, international institutions and states that are capable of lowering emissions and/or making a financial contribution. Kent, Maniates and Seyfang are concerned that assigning actors outside of the state responsibility will distract from states' responsibilities. However, morally, states cannot escape their responsibilities in the case of climate change. Many states are very much capable of lowering emissions by implementing policies within their borders, and on top of this have the financial capability to contribute to the climate change effort, which implies moral responsibility in line with the argument from capability made above. The response to Kent, Maniates, and Seyfang is therefore that individual moral responsibility and state moral responsibility are not mutually exclusive. Even if individual responsibility distracted from state responsibility, which was argued not to always be the case above, states cannot escape their moral responsibilities in the case of climate change, due to their capabilities to affect the climate change problem. For this reason, states are explicitly incorporated into the stance on 'collective action,' or more

¹³⁷ Singer, P., 'Famine, Affluence, and Morality' in *Philosophy and Public Affairs* 1 (1972), p. 239

specifically, collective responsibility. In addition, the thesis has explicated a specific demand which is exclusively concerned with the moral responsibility of states – the demand that the distribution of benefits and burdens should be based on the PATP model. This model holds states with high emissions and/or high levels of wealth to account. In this way moral responsibility of states is not ‘distracted from’ in this thesis. The moral responsibility of states is considered morally as important as the responsibility of other capable agents. Now that the second potential criticism against individual responsibility has been responded to, the chapter turns to the fourth and final criticism: the criticism from governmentality.

Criticism Four: Governmentality

The theory of governmentality seeks to highlight the underlying power dimensions of the concept of individual responsibility. The term governmentality was coined by Michel Foucault in the 1970s. Governmentality, he explains, is ‘an activity that undertakes to conduct individuals throughout their lives by placing them under the authority of a guide responsible for what they do and for what happens to them.’¹³⁸ In other words, it is an activity which results in individuals conducting their behavior based on the understanding that they are responsible for their own actions, without understanding that they are under a guiding influence of subversive power. The theory of governmentality stems out of Foucault’s study of the emergence of neo-liberalism. Foucault explains that neo-liberalism aspires to construct responsible subjects whose moral quality is based on the fact that they rationally assess the costs and benefits of a certain act as opposed to other alternative acts.¹³⁹ This results in the ‘responsibilisation’ of subjects, which essentially implies that individuals see themselves as responsible for problems which may have previously been under the domain of social structures, for example unemployment, alcoholism, or criminality.¹⁴⁰ What is being put forward here is that the neo-liberal system has created a false illusion, or rationality, of individual responsibility. Not only is the rationality of individual responsibility an illusion, it also creates conditions through which certain forms of conduct, or behavior, are created.¹⁴¹ This is referred to as governmentality. Importantly, as Thomas Lenke explains, governmentality is not about coercion in a traditional sense, but

¹³⁸ Foucault, M., *Ethics: Subjectivity and Truth. Essential Works of Michel Foucault, 1954–1984 Volume I* (New York: New Press, 1997), p. 68

¹³⁹ Lenke, T., ‘Foucault, Governmentality, and Critique’ presented at the *Rethinking Marxism Conference*, University of Amherst (MA), September 21 – 24, 2000, p. 12

¹⁴⁰ *Ibid.*, p. 5

¹⁴¹ Rose, N., O’Malley, P., and Valverde, M., ‘Governmentality’ in *Annual Review of Law, Sociology, and Science* 2 (2006), p. 84

rather about shifting rationality, which is a form of power.¹⁴² Processes of governmentality do not necessarily make an individual *feel* governed, but instead cause them to conduct their behavior in a certain way.¹⁴³ These individuals do not question their responsibilities and, importantly, do not turn to social structures for help with these responsibilities.

Processes of governmentality are relevant to the idea of individual responsibility for climate change. Matthew Paterson and Johannes Stripple explain that there is an emergent governmentality within the context of climate change which results in individuals viewing themselves as concerned carbon emitters and governing their emissions in various ways - as counters, displacers, dieters, communitarians, or citizens.¹⁴⁴ Paterson and Stripple find this problematic because governmentality, in the case of climate change, is not only shaping individual behavior, but internal rationalities, identities, and what individuals fundamentally regard as 'normal' behavior.¹⁴⁵ They explain that this is a good example of how power operates, guiding the ways that individuals behave.¹⁴⁶ The fundamental problem with this is that individuals are unaware of the power which lies behind their conviction to 'do their part' against climate change.

The critique from governmentality is interesting and important. The fact that individuals are unaware that their behavior is being pre-determined is problematic and raises concerns about the structures which make up society. It seems to reveal a fundamental inequality between these structures and the individuals who live within them. Nevertheless, there are two possible responses to the criticism from a governmentality perspective. The first is that the theory of governmentality may highlight an important problem, but it does not provide scope for positive action or change. One of the most famous proponents of this response is Jürgen Habermas, who accuses Foucault of presenting governmentality as something so ubiquitous and overwhelming that all resistance becomes pointless.¹⁴⁷ Habermas goes so far as to say that Foucault's philosophy encourages political non-commitment and conservatism, and leaves no room for positive action.¹⁴⁸ Habermas seems to be suggesting that governmentality cannot be escaped. This is a powerful argument. If governmentality

¹⁴² Lenke, T., 'Foucault, Governmentality, and Critique' presented at the *Rethinking Marxism Conference*, University of Amherst (MA), September 21 – 24, 2000, p. 3

¹⁴³ *Ibid.*, p. 5

¹⁴⁴ Paterson, M. and Stripple, J., 'My Space: Governing Individual's Carbon Emissions' in *Environment and Planning D: Society and Space* 28 (2010), p. 342

¹⁴⁵ *Ibid.*, p. 359

¹⁴⁶ *Ibid.*

¹⁴⁷ Pickett, B. L., 'Foucault and the Politics of Resistance' in *Polity* 28 (1996), p. 461

¹⁴⁸ Isenberg, B., 'Habermas on Foucault – Critical Remarks' in *Acta Sociologica* 24 (1991), p. 301

has indeed developed through neo-liberal rationality, and controls individual behavior in a way which cannot be detected by individuals, this leaves very little space for resistance. It seems to be a fabric of every day life individuals cannot escape. In addition, and perhaps more detrimentally, Foucault does not provide an answer to how societal structures can be reformed, he merely provides a critique of these structures. In relation to climate change, Paterson and Stripple explain that imagining a response to climate change which does not include individual action is manifestly problematic, because it is difficult to envisage how limiting global emissions might be achieved without individual effort.¹⁴⁹ It seems that the problem with the theory of governmentality is that it does not provide an answer of how to take positive action and what to aim for. This provides grounds for rejecting the criticism, because a lack of positive action is unacceptable in the case of climate change. If governmentality indeed encourages nihilism, as Habermas claims, then it is dangerous because climate change requires urgent action, including individual action, to prevent the violation of the human right to health.

However, the first response to governmentality reveals a second response to the critique which is worth articulating. Proponents of governmentality explain why Foucault does not need to leave room for positive action, or indeed lay out alternative social arrangements. As Brent Pickett explains, Foucault cannot lay down how or why one should struggle, because this would amount to a globalistic theory which would act as an agent of power, because it would predetermine the conduct of individuals.¹⁵⁰ In other words, if Foucault provided a scope for positive action, or a blueprint of an alternative social arrangement, this would amount to governmentality in itself. Pickett explains that for this reason, Foucault directly distances himself from the kinds of universal 'what is to be done?' formulas. Foucault believes that 'solutions' of this type are themselves part of the problem.¹⁵¹ This points to an incompatibility between Habermas and Foucault. Foucault is a declared opponent of ideals, understood as definitive answers to 'what ought I to do?' or 'what is to be done?'¹⁵² These questions are precisely the questions Habermas tries to answer – he works in a 'top-down' moralist fashion, and sketches procedures to be followed.¹⁵³ This suggests that Habermas and Foucault have fundamentally different

¹⁴⁹ Paterson, M. and Stripple, J., 'My Space: Governing Individual's Carbon Emissions' in *Environment and Planning D: Society and Space* 28 (2010), p. 359

¹⁵⁰ Pickett, B. L., 'Foucault and the Politics of Resistance' in *Polity* 28 (1996), p. 461

¹⁵¹ Flyvbjerg, B., 'Habermas and Foucault: Thinkers for Civil Society?' in *The British Journal of Sociology* 49 (1998), p. 224

¹⁵² *Ibid.*, p. 220

¹⁵³ *Ibid.*, p. 224

approaches to political theory. Interestingly, Bent Flyvbjerg believes this may be down to the traditions and literatures Habermas and Foucault stem out of: Foucault works within a particularistic and contextualist tradition, and Habermas is an exponent of a universalistic and theorizing tradition.¹⁵⁴ Bo Isenberg agrees with Flyvbjerg's assessment, and explains that Habermas and Foucault simply speak different languages: they operate within different ensembles of perspectives, theories, concepts, and logics.¹⁵⁵

What the above illustrates is that Habermas and Foucault stem from different backgrounds and therefore fundamentally disagree about how political theory should be conducted. This thesis is based in the normative, universalist theory of global justice, which is similar to the Habermasian approach to conducting political theory in the sense that global justice theory attempts to provide moral solutions to problems. What this implies is that there may be a fundamental incompatibility between the critique from governmentality and the cosmopolitan position on individual responsibility. This is not to say that the critique from governmentality is not interesting or important, but that the critique from governmentality does not offer a constructive critique to the cosmopolitan position. To accept the critique from governmentality would be to reject the basic premise of cosmopolitanism, which aims to provide a prescriptive moral theory. To accept this as problematic, as Foucault does, would be counterproductive and potentially nihilistic. Previous chapters have comprehensively illustrated that the global justice position is useful in the case of the climate change problem, and argued that it is a worthwhile endeavor to assess the climate change problem from this perspective. For this reason, the critique from governmentality will be considered unconstructive, and be rejected at this point in the thesis.

Now that all four criticisms have been addressed, the chapter will summarize the position on collective action below. It has been argued above that agents, including individuals, corporations, sub-state entities, international institutions, and states can have an effect on climate change, and should therefore be held morally responsible for lowering emissions and/or contributing financially to mitigation and adaptation efforts, according to their respective capabilities, and as long as this does not imply sacrificing something as morally important as the human right to health. This position has been defended against four potential criticisms. The stance on collective action represents the third and final explicit

¹⁵⁴ Flyvbjerg, B., 'Habermas and Foucault: Thinkers for Civil Society?' in *The British Journal of Sociology* 49 (1998), p. 228

¹⁵⁵ Isenberg, B., 'Habermas on Foucault – Critical Remarks' in *Acta Sociologica* 24 (1991), p. 307

demand of justice which must be met under the climate justice position defended in this thesis.

Conclusion

This chapter constituted the third of three chapters which make up Part II of the thesis 'Developing a Global Justice and Climate Change Position, and concerned defining what climate justice, as defended in this thesis, demands. To achieve this, the chapter examined three main issues associated with the empirical conditions of climate change, namely what is owed to future generations, how to include less developed countries in climate change action, and who makes up the responsible 'collective' in collective action. The chapter aimed to illustrate how the mixed approach defended in Chapter Three can be applied to take a stance on each of these issues. The first section of the chapter addressed how much is owed to future generations and argued that the non-relational scope of the mixed position defined in Chapter Three demands that the right to health of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected. This is the non-relational minimum which cannot be crossed under any circumstances. The section which followed used the relational side of the mixed position to explore the relationship between developed countries and less developed countries, and made the case that states should be held to account according to both their emissions levels and wealth levels, because this best incorporates a solution which can reasonably be accepted by all. This is a relational demand which stems out of the special relationships created by climate change. Finally, the third section of the chapter argued that the empirical realities of the climate change problem imply that the responsible actors making up the 'collective' in collective action extend beyond states, and should include all capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in. This conception of collective responsibility stemmed out of a relational discussion of the relationships between actors causing climate change and suffering from its effects, and makes up the third demand of justice.

Part II of the thesis, 'Developing a Global Justice and Climate Change Position' is now complete. This second part of the thesis has laid the foundation for the assessment of current practice, by defining the scope and grounds of justice, and explaining what climate justice demands. The three demands of justice defined in this chapter are considered normative principles which must underwrite a more just global response to climate change.

With these normative principles in hand, the thesis can turn to the assessment of the global response to climate change.

Part III: Assessing Current Institutional Practice

Chapter Six – Current Institutional Practice: A Conceptual Introduction

Introduction

The thesis has now completed Part One: ‘Defining the Problem’, as well as Part Two: ‘Developing a Global Justice and Climate Change Position,’ and now moves on to Part Three: ‘Assessing Current Institutional Practice.’ Part One reviewed empirical evidence for climate change and argued that the cosmopolitan justice position is appropriate for a normative assessment of the climate change problem. Part Two developed a unique climate justice position by defining a scope and grounds of justice, and explaining what justice demands. This current chapter, Chapter Six, and the two which follow, Chapters Seven and Eight, will make up the final part of the thesis, which concerns demonstrating how current institutional practice can be evaluated using the climate justice position developed in Part II of this thesis. This speaks to the broader aim of bridging the gap between climate justice theory and climate change governance research. By illustrating that climate justice theory can be relevant and useful for the assessment of climate governance, the thesis aims to create a bridge between theory and practice, as was explained in the Introduction of this thesis.

This current chapter serves to provide a conceptual introduction for the two chapters that follow. Chapter Seven and Eight will concern the exploratory assessment of multilateral climate change governance processes (in Chapter Seven) and networked climate change governance processes (in Chapter Eight). This current chapter, Chapter Six, is necessary to clarify what is meant by current institutional practice, why actors who operate under current institutional practice have a responsibility to act on climate change, and how current institutional practice will be assessed. The chapter will be split into four sections; beginning with a section that will briefly summarize the climate change justice position developed in Part II of this thesis. Section two of the chapter will then define current institutional practice, by outlining the processes involved in global climate change governance: multilateral (United Nations Framework for the Convention on Climate Change, or UNFCCC) and networked climate change governance. Following this, Section three will outline why exactly actors in the UNFCCC and actors involved in networked governance processes can be held responsible for bringing about a just response to climate change. Finally, Section four will outline a methodological framework to clarify how current practice will be assessed. The chapter will then conclude with a brief overview of what has been put forward.

The Climate Justice Position - Three Demands of Justice

This section will provide a brief summary of the climate justice position defended in Part II of this thesis, and outline three demands of justice that must be met in order to achieve a condition of justice in the case of climate change. These three demands stem from Part II of the thesis. Chapter Three defined the scope of justice as both relational and non-relational, and argued that the non-relational conception of justice will be used to define moral thresholds, while the relational conception of justice will be used to explicate demands of justice specific to special relationships climate change creates. Chapter Four grounded the non-relational scope of justice in the right to health, which represents the moral minimum all humans are entitled to, no matter the time or place of their birth. Chapter Five used the scope and grounds of justice developed in Chapters Three and Four to discuss what is owed to future generations, how to include less developed countries in climate change action, and who makes up the responsible 'collective' in collective action. In doing so, Chapter Five aimed to clarify and defend normative principles that must underwrite a more just global response to climate change. Chapter Five defined three demands, which will be presented as a list below.

1. The right to health¹ of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected.
2. The concerns of less developed countries must be properly considered in climate change action. The distribution of benefits and burdens in global climate change action should be based in the PATP² model.
3. Capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause, in line with their respective capabilities.

These three demands of justice represent what is required to meet a condition of justice in the case of climate change according to the position defended in this thesis. This current

¹ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

² Polluter's Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

chapter serves to explain how these demands can be used in the assessment of current practice. For now, the chapter moves onto defining current institutional practice.

Defining Current Institutional Practice

The current global response to climate change consists of a wide array of institutions. This is because 'if climate change is to be slowed, let alone reversed, huge sacrifices will have to be shared by all,'³ – or more specifically, by individuals, firms, sub-state entities, international institutions, and states, as was argued in Chapter Five. Coordinating these sacrifices is a complicated matter. The number of institutions involved in addressing climate change is almost immeasurable, as institutions are in place at the global, regional, national, and local level. In order to narrow the vast field of current institutional practice, the thesis will concentrate on global climate change governance. The decision to focus on this area of current institutional practice has been made for two reasons. Firstly, the coordination for climate change action takes place, in the first instance, at the global level. It has been widely accepted that environmental concerns, including climate change, are transnational collective action problems that are unlikely to be resolved by action at the level of the nation state.⁴ For this reason, climate change action is coordinated largely at the global level, and the decisions made at this level have an effect on all levels below it. Consequently, it is a worthwhile endeavor to assess this level of current institutional practice as a priority. Relatedly, recommending changes at the regional, national, or local institutional level may be difficult without an understanding of global institutional practice, because problems at the lower levels of institutional practice may have been caused by global level decisions. Secondly, although assessing regional, national or local institutional practice is no doubt important and interesting, the thesis cannot possibly assess all types of institutions involved in action against climate change. For these two reasons, the thesis will prioritize global climate change governance in its assessment of current practice.

Global climate change governance can be defined as 'all purposeful mechanisms and measures aimed at steering the social systems towards preventing, mitigating, or adapting to the risks posed by climate change.'⁵ This broad definition captures the fact that global climate change governance is a complex array of many different types of institutions, organizations, regimes, regulatory bodies, decision making procedures and actors.

³ Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 166

⁴ Bevir, M., *Key Concepts in Governance* (London: Sage, 2009), p. 78

⁵ Stripple, J., and Pattberg, P., 'Agency in Global Climate change governance: Setting the Stage' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Change Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 142

Although a broad definition is easily found, it is difficult to pin down exactly what global climate change governance involves. For example, it is difficult to define exactly what processes are occurring, who has authority over what issues, and who is responsible for what action. This is linked to the fact that the concept of global governance is difficult to define, as will be briefly illustrated below. Nevertheless, this chapter will attempt to provide some clarity on what processes are involved in global climate change governance, how these processes compare, and in the section which follows, why actors within these processes can be held morally responsible.

Governance is a broad term used in the study of national politics to capture norms or patterns of rule that arise either when the state is dependent upon others or when the state plays little or no role, or in other words in absence of an enforcing agent.⁶ In this sense, governance is quite a general term, and can be used to explore abstract analyses of the construction of social orders, social coordination, or social practices irrespective of their specific context.⁷ This is where the difficulty in answering questions about processes, authority, and responsibility begin to become apparent, because governance seems to cover a wide spectrum of activity.⁸ Global governance is an equally broad term. Global governance refers to the ways in which a variety of actors come together to address global problems.⁹ These actors produce a global pattern of rule even in the absence of an overarching world state.¹⁰ This is in line with the definition of governance above, as it refers to patterns of rule in the absence of an enforcing agent. Global governance is also sometimes defined as efforts which attempt to respond to or address social and political issues that go beyond the capacities of individual states to solve.¹¹ Overall, the conception of global governance appears to be quite broad, in the sense that scholars studying these processes do not specify specific actors or institutions, but rather outline a process which can encompass a variety of actors. The broad nature of the concept of global governance above reveals the difficulties in providing a clear overview of processes which occur under global governance, and how these processes may relate in terms of their authority and responsibilities. It seems that it is necessary to zero in on one area of global governance, such as climate change, in order to gain more insight.

⁶ Bevir, M., *Key Concepts in Governance* (London: Sage, 2009), p. 3

⁷ *Ibid.*

⁸ Bell, S. and Hindmoor, A., *Rethinking Governance: The Centrality of the State in Modern Society* (Cambridge: Cambridge University Press, 2009), p. 1

⁹ Bevir, M., *Key Concepts in Governance* (London: Sage, 2009), p. 85

¹⁰ *Ibid.*

¹¹ Whitman, J., *The Fundamentals of Global Governance* (Basingstoke: Palgrave Macmillan, 2009), p. 8

Global Climate Change Governance

Although climate change governance is a vast arena of actors and institutions, these processes can be broken down into two broad categories common to global governance as a whole: multilateral and networked climate change governance. Multilateral governance involves states working together to solve a problem. Networked climate change governance, on the other hand, is made up of a variety of actors, including multinational corporations, international organizations, and individuals who coordinate their action globally. These actors promote policies, set standards, and call for action both with and without the cooperation of states.¹² These types of actors are often grouped together under a common umbrella term, such as experimental governance,¹³ networked governance,¹⁴ or transnational governance.¹⁵ The thesis will use only one term, namely 'networked governance' to describe governance processes outside of multilateral global governance processes in order to avoid confusion. Nevertheless, this term should be taken to imply 'experimental' governance or 'transnational' governance by those who refer to it as such.

It is important to *outline*, in this chapter, and *assess*, in the chapters which follow, both multilateral and networked governance, because both processes play an important part in acting against climate change.¹⁶ Although multilateral climate change governance processes are perhaps more public or familiar, 'we no longer observe a singular global response to climate change, and are instead observing multiple global responses,' including networked climate change governance responses.¹⁷ Furthermore, some scholars, such as Matthew Hoffman, go so far as to claim that networked climate change governance processes do not merely exist alongside multilateral governance processes, but that the center of gravity in the global response to climate change is shifting from the multilateral treaties to diverse activities outside of this process.¹⁸ If networked climate change governance processes are indeed becoming increasingly important, it is crucial to research these processes in order to fully understand global climate change governance.

¹² Bevir, M., *Key Concepts in Governance* (London: Sage, 2009), p. 87

¹³ Hoffman, M.J., *Climate Change Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011)

¹⁴ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014)

¹⁵ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 55

¹⁶ *Ibid.* p. 10

¹⁷ Hoffman, M.J., *Climate Change Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 17

¹⁸ *Ibid.* p. 5

In addition, while it may be difficult to research networked climate change governance processes due to their diversity and complexity, Hoffman claims that networked climate change governance processes may represent the best hope for effectively responding to climate change.¹⁹ If this is the case, it is important to assess whether these processes may also represent the best hope for a just response to climate change. Furthermore, because of the apparent growing importance of networked climate change governance processes, it is increasingly common for climate change governance literature to concern both multilateral and networked climate change governance processes. Scholars of climate change governance go so far as to say that failing to explore networked governance processes would ignore the complexities of the climate change governance process.²⁰ In other words, solely assessing multilateral climate change governance processes would seemingly ignore a thriving and influential part of climate change governance, and lead to an incomplete assessment of current institutional practice. The thesis will therefore follow emerging convention and outline both types of climate change governance processes below.

Multilateral Climate Change Governance Processes

Multilateral climate change governance refers to the state led processes of climate change governance coordinated under the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC is the only global multilateral institution tasked, by treaty, with coordinating global climate change action. It will therefore be the only institution assessed under the heading of multilateral climate change governance processes. The emergence of the UNFCCC can be traced back to the 1980s, which saw the first attempts at coordinating international action against climate change during a series of workshops and conferences that produced political declarations and aspirational targets for reducing global greenhouse gas (GHG) emissions, such as the so-called 'Toronto Target.'²¹ In 1992 climate change was firmly established on the global agenda at the United Nations Conference on Environment and Development in Rio de Janeiro, which adopted the United Nations Framework Convention on Climate Change, or UNFCCC.²² The Convention, an international treaty ratified by 195 states, entered into force on 21 March 1994. The ultimate objective of the UNFCCC is to achieve stabilization of greenhouse gas

¹⁹ Hoffman, M.J., *Climate Change Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 5

²⁰ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 10

²¹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 2

²² *Ibid.*

concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.²³

The UNFCCC provides a framework to assess progress and to negotiate policy and international treaties, referred to as Protocols. The main actors operating under the UNFCCC are states, referred to as Parties to the Convention, who meet annually at the Conference of the Parties (COP) to review progress on commitments and to update them in the light of the latest scientific advice.²⁴ The Parties are the ultimate decision making body in climate negotiations, which implies that states are the ultimate decision makers in multilateral climate change governance.²⁵ At the annual COP, states often organize themselves into blocs and negotiating coalitions to enhance their influence and to advance common agendas.²⁶ The most notable blocs are the European Union (EU), the developing countries (G77+China), the Association of Small Island States (AOSIS), the Umbrella Group (composed of the United States, Canada, Australia, New Zealand, Russia, Ukraine, Japan, and Norway), and the Environmental Integrity Group (Switzerland, Lichtenstein, Monaco, South Korea, and Mexico).²⁷ These blocs negotiate at the COPs, assess current measures taken, and work towards developing protocols and implementation measures. The most significant outcome of the COPs remains the first and only protocol: the 1997 Kyoto Protocol, which committed a number of developed countries to GHG reduction and limitation targets.²⁸

It is important to note that the main actors of the UNFCCC are states. Although states come together under the UNFCCC to negotiate treaties, the UNFCCC is itself not an actor with its own powers. States have the final say on all decisions. States collectively set targets and goals, and individual states then follow these targets and goals within their borders. For example, states can use carbon taxes, emissions trading, building codes, or encourage individuals to reduce emissions. It is states who must ensure that these efforts collectively add up to the agreed emissions reduction targets. Therefore, although the UNFCCC has authority to make decisions about how to act on climate change, this authority is ultimately

²³ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 9

²⁴ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 18

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 63

²⁸ *Ibid.*, p. 62

derived from states.²⁹ What this type of authority implies for responsibility in climate change governance will be further discussed below. Before this, an overview of networked climate change governance processes will be provided.

Networked Climate Change Governance Processes

Alongside the UNFCCC, there exists an array of activities that are attempting to respond to climate change, referred to here under the umbrella term of networked climate change governance. These processes of climate change governance are not focused on a single outcome, such as a global treaty. Instead, networked climate change governance initiatives push the global response to climate change in a number of directions - energy efficiency, carbon markets, local adaptation, and transformation of the built environment or transportation systems, among others.³⁰ Most commonly, networked climate change initiatives are involved in information sharing or voluntary goal setting. With such an array of actors and activities, it is difficult to define networked climate change governance processes succinctly. Nevertheless, these processes can be categorized in order to provide clarity.

One of the most common ways to categorize the processes occurring involved in networked governance processes is to group the activities into public, private, and hybrid.³¹ Public networked climate change governance processes include transnational municipal networks, networks of regional governments or bilateral agreements between subnational governments.³² These public groups usually focus on meeting common goals.³³ Examples include the C40, which is a network of the world's largest cities. These cities aim to share best practices and develop collaborative initiatives on city specific issues.³⁴ Hybrid networked climate change governance processes include both public and private actors in various forms of collaborations.³⁵ This type of networked climate change governance can

²⁹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 87

³⁰ Hoffman, M.J., *Climate Change Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 5

³¹ See: Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 87, Bäckstrand, K., 'Accountability of Networked Climate change governance: The Rise of Transnational Climate Partnerships' in *Global Environmental Politics* 8 (2008), p. 74 and Stripple, J., and Pattberg, P., 'Agency in Global Climate Change Governance: Setting the Stage' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Change Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 142, and Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 61

³² Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 59

³³ *Ibid.*, p. 61

³⁴ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 19

³⁵ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 62

involve a range of actors, including host governments, private investors, carbon brokers, and non-governmental organizations.³⁶ An example of a hybrid project is the Climate Group, which involves both public actors (e.g. Germany, California, and London) and private actors (e.g. M&S, BP, HSBC, Shell), and aims to spread best practices and solutions.³⁷ Private networked climate change governance processes involve a variety of private actors, including corporate and civil-society sectors, who work together to define issues, set up rules to follow, and ensure compliance to these rules is monitored.³⁸ Examples include the Verified Carbon Standard, a private institution which facilitates the exchange of carbon credits by 'eliminating the need for the purchaser to evaluate the merits of many different projects,' and therefore plays a crucial role in enabling carbon markets to run.³⁹

Grouping the processes of networked climate governance into public, private, and hybrid governance is relatively common in climate change governance literature. However, processes of networked climate governance can also be grouped according to function. For example, Hoffman defines four groups according to function: networkers, infrastructure builders, voluntary actors, and accountable actors.⁴⁰ Another way climate change governance scholars group networked governance processes is according to both function and type of actor. Kenneth Abbott, for example, focuses on both functions and types of actors in his analysis of the different types of networked governance projects.⁴¹ These three common ways to group networked governance processes (actor type, function, or both) reveal that networked climate change governance is a complex field. Chapter Eight will provide further insight into networked climate change governance processes. For now, the current chapter merely serves to emphasize how complex these processes of governance are.

It is important to note that while the UNFCCC obtains its authority through legal ratification by its sovereign state members, authority in networked climate change governance processes is often obtained more informally, for example through filling gaps in

³⁶ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 61

³⁷ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 82

³⁸ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 65

³⁹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 111

⁴⁰ Hoffman, M.J., *Climate Change Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 41

⁴¹ Abbott, K. W., 'The Transnational Regime Complex for Climate Change' in *Environment & Planning C: Government & Policy* 30(4) (2012) pp. 578

regulation.⁴² Whether this difference in authority has an effect on the responsibility of actors under the UNFCCC and within networked governance processes will be explored below.

Responsibility and Authority in Climate Change Governance

This chapter has, so far, provided an overview of institutional practice, and explained why the UNFCCC and networked climate change governance processes have been chosen to represent this practice. This penultimate section of the chapter will defend the idea that actors in the UNFCCC and those actors who operate involved in networked climate change governance processes can be held responsible for a just response to climate change. This argument will be made in two parts. First, the chapter will ground the responsibility of these actors in a conception of their capability to ‘enable’ the three demands of justice explicated in this thesis, a conception of responsibility which will be explained in detail below. This will be referred to as ‘institutional responsibility.’ Second, the chapter will explore differences in authority of actors in the UNFCCC and networked climate change governance processes, and will explain what this difference in authority means for institutional responsibility.

Institutional Responsibility: Moral Responsibility from Capability

The argument which will be put forward here is similar to the argument made in the previous chapter, which established the moral responsibility of capable actors to lower emissions and contribute financially to the climate change cause. However, it will be argued here that the responsibility of actors within climate governance institutions is not simply to lower emissions or contribute financially, but to ‘enable’ the three demands of justice set out in this thesis. The discussion below will explain what is meant by ‘enabling,’ and why this responsibility can be attributed to actors under the UNFCCC and actors involved in networked climate change governance processes. The chapter will make use of Peter Singer’s capability argument and draw on the work of Simon Caney, who has very recently made a case for institutional responsibility in the case of climate change. However, as will be illustrated below, Caney’s argument remains theoretical, in the sense that it does not aim to investigate whether the responsibilities he defines are met. There is more work to be done in this area, and this thesis will contribute to moving the global justice and climate change debate forward by investigating actors in specific institutions and assessing to what extent they are meeting their responsibilities. This speaks to the aim of bridging

⁴² Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate change governance* (Cambridge: Cambridge University Press, 2014), p. 87

the gap between climate justice theory and climate change governance practice, because it involves applying the most recent theory in order to assess current practice. The chapter will now make the case for institutional responsibility by drawing on Singer's and Caney's work, before explaining how a conception of institutional responsibility will be applied in this thesis.

Singer's argument for moral responsibility from capability was used in the previous chapter, Chapter Five, to establish the moral responsibility of capable actors to lower emissions and contribute financially to the climate change cause. To recap, Singer argues that if it is 'within our power to prevent something bad from happening, without thereby sacrificing anything of comparable moral importance, then we ought, morally, to do it.'⁴³ He illustrates his argument by explaining that if someone is walking past a shallow pond and sees a child drowning in it, they ought to wade in and pull the child out, even if this will mean getting their clothes muddy.⁴⁴ In other words, an agent is morally responsible if they are capable of acting to prevent a moral harm without sacrificing something of equal moral importance. It is arguable that Singer's account of responsibility from capability can be applied in order to defend institutional responsibility. Singer himself hints at this in his work on climate change, where he outlines the need for global institutions to regulate climate change. Singer argues that it difficult to envisage 'any solution to climate change that does not require effective global institutions.'⁴⁵ He also claims that although it will not be easy for global institutions to regulate climate change, the challenge nonetheless 'needs to be met.'⁴⁶ Singer seems to be implying two points here. The first is that institutions have the capability to meet the challenge of regulating climate change efforts, and the second is that it is morally necessary that they meet this challenge.

According to Singer's own responsibility from capability argument, which states that actors capable of preventing moral harm must act as long as they do not sacrifice something of equal moral importance, this seems to imply moral responsibility for capable institutions in the case of climate change. If global institutions are capable of 'meeting the challenge of regulating climate change efforts' and this challenge 'needs to be met' then this implies that capable global institutions must act. This is consistent with Singer's optimism for the

⁴³ Singer, P., 'Famine, Affluence, and Morality' in *Philosophy and Public Affairs* 1 (1972), p. 231

⁴⁴ *Ibid.*

⁴⁵ Singer, P., 'Ethics and Climate Change: A Commentary on MacCracken, Toman and Gardiner' in *Environmental Values* 15 (2006), p. 421

⁴⁶ *Ibid.*

future, which he bases in the fact that ‘the developed countries have signed the Kyoto Protocol, and are now discussing further steps that need to be taken.’⁴⁷ Singer is seemingly putting faith into global institutions and their potential capability to deal with the climate change problem, which implies, according to his own logic, that these institutions have a responsibility to act on their capabilities. While Singer does not make the case for institutional responsibility explicitly, it is arguably in line with his original argument and implicit in his work on the climate change problem. This suggests that an argument for the moral responsibility of institutions could potentially rest on the same argument from capability on which the responsibility of capable actors to lower emissions and make financial contributions rests.

Simon Caney openly advocates such a capability as responsibility approach to climate change. Caney explains that we need to take ‘institutional and political reality’ of climate change into account. The ‘political reality’ of climate change is that actors will not automatically comply with their moral responsibilities. Caney explains that thinking otherwise would be ‘be naïve in the extreme’ based on ‘our experience of human nature and the inconclusive nature of the negotiations on climate change for the last two decades.’⁴⁸ In other words, although the moral responsibilities of actors have been laid out, this has not resulted in serious action on climate change. For this reason, Caney believes something must be done to ensure that moral responsibilities are met. He argues that the ‘institutional reality’ of climate change is that there are some actors who are capable of ensuring compliance with moral responsibilities or at least enabling action in the first place.⁴⁹ When applied to the climate justice position defended in this thesis, Caney’s argument seems to suggest the ‘political reality’ is that the three demands of justice will not automatically be realized merely because they have been defined. However, Caney’s conception of ‘institutional reality’ implies that there may be actors who have the capability of ensuring these demands of justice are met, which seems to imply that these actors may have a moral responsibility to act on these capabilities, based on the argument from capability advocated by Singer. Caney seems to agree with Singer’s argument, and makes the case for what he refers to as a two tier approach to climate justice, split into first and second order responsibilities.

⁴⁷ Singer, P., ‘Ethics and Climate Change: A Commentary on MacCracken, Toman and Gardiner’ in *Environmental Values* 15 (2006), p. 421

⁴⁸ Caney, S., ‘Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens’ in *The Journal of Political Philosophy* 22 (2014), p. 134

⁴⁹ *Ibid.*, p. 135

Caney's first order responsibilities include 'responsibilities to mitigate climate change, to enable adaption, and to compensate people for harm done.'⁵⁰ Second-order responsibilities, by contrast, refer to responsibilities that some have to ensure that agents comply with their first-order responsibilities.⁵¹ What this seems to imply is that Caney is attempting to differentiate between the moral responsibility to act on climate change, and the moral responsibility to ensure that climate change is acted upon. What is interesting to note is that second order responsibilities are based on capability. Caney lists six kinds of capabilities that would imply second order responsibility. One of these is enforcement, or the political power to set up enforcement mechanisms.⁵² Caney also outlines enablement, incentivization, norm creation, undermining resistance, and civil disobedience.⁵³ What Caney stresses in his outline of these capabilities is that the possession of these capabilities implies the second order moral responsibility to act on them. Caney explains that he wants to attribute second order responsibilities to 'those who can make a valuable difference.'⁵⁴ He posits that those with the power to compel or induce or enable others to act have a responsibility to do so.⁵⁵ Although Caney refers to 'power,' not 'capability,' his argument is clearly an argument from capability. This is implicit in the fact that Caney refers to those responsible as 'those who can,' and in the fact that power is a synonym for capability.⁵⁶ It is also interesting to note that Caney's argument implies a differentiation between agents in terms of capability. The previous chapter argued that there is differentiation between actors in terms of their capabilities to reduce emissions and/or contribute financially, and that responsibilities should be allocated accordingly. It is implicit in Caney's list of six possible capabilities of second order agents that these agents have differing capabilities. As Caney explains: 'though their capacities vary, second-order agents can make a marked difference to whether people comply with their first-order responsibilities.'⁵⁷ Therefore, the moral responsibility of agents will vary according to their capabilities. This differentiation between actors will be further discussed in the section on the differences in

⁵⁰ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 134

⁵¹ *Ibid.*, p. 135

⁵² *Ibid.*, p. 136

⁵³ *Ibid.*, p. 138

⁵⁴ *Ibid.*, p. 141

⁵⁵ *Ibid.*

⁵⁶ According to the Oxford English Dictionary -

<http://www.oed.com/view/Entry/27353?redirectedFrom=capability&>

⁵⁷ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 143

authority between the UNFCCC and networked climate change governance processes, because as will be explained, a difference in authority implies a difference in responsibility.

To summarize, Caney's argument is that those agents with the power to discharge second-order responsibilities have a duty to do so.⁵⁸ Caney's conception of second order responsibilities will be adopted in this thesis. How exactly the approach will be adopted will be outlined below. Yet, before doing so, it is important to explain the usefulness of Caney's approach to the thesis. Caney, as was noted above, creates his position in order to take into account the political and institutional realities of climate change. He argues that his approach 'provides an account of the explicitly political responsibilities that are needed if we are to avoid severe climatic changes.'⁵⁹ In other words, his approach defines who exactly is responsible for meeting demands of justice in the current political context. Defining who is responsible in the current political context is useful because it allows an exploration of the extent to which agents defined as responsible are meeting their responsibilities. Without an idea of who the responsible agents are, it is not possible to explore to what extent responsibilities are being met. One of the main aims of the thesis is to normatively assess the current response to climate change in order to try and bridge the gap between climate justice theory and climate change governance practice. In order to achieve this, demands of justice must be defined, and agents responsible for 'enabling' these demands must be identified so that it is clear whom to hold accountable and for what we can reasonably hold them morally responsible for. For this reason, Caney's argument will be adapted in order to create a conception of institutional responsibility.

Institutional Responsibility of Actors in Multilateral and Networked Climate Change Governance

The chapter will now define the concept of institutional responsibility, by drawing on and expanding Caney's argument for second order responsibilities. The chapter will also define what is meant by 'enable,' and include an overview of the capabilities of the actors under the UNFCCC and within networked climate change governance, in order to illustrate why these actors can be assigned institutional responsibility. As was explained above, Caney's argument, which is arguably based on a responsibility from capability approach, is extremely useful for the thesis. However, Caney's position must be built upon and expanded in order to fit within the remits of the thesis and address some of the limitations

⁵⁸ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 146

⁵⁹ *Ibid.*, p. 147

of his approach. In terms of building on the approach, the first step is to expand the conception of first order responsibilities. Caney defines first order responsibilities as 'responsibilities to mitigate climate change, to enable adaption, and to compensate people for harm done.'⁶⁰ This is in line with Demand Three set out in this thesis, which calls for all capable actors, including individuals, corporations, international institutions and states to lower emissions and/or contribute financially to the climate change problem depending on their capabilities. However, the thesis goes beyond this one demand, and outlines two more which must be met in order to achieve a condition of justice in the case of climate change. Demand One states that the right to health⁶¹ of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected. Demand Two states that the concerns of less developed countries must be properly considered in climate change action, and that the distribution of benefits and burdens in global climate change action should be based in the PATP⁶² model. In other words, the thesis defines three distinct first order responsibilities.

Building on Caney's logic would imply that second order responsibilities would consist of not only ensuring that actors lower emissions and contribute financially, but to ensure the protection of the right to health of future generations, and to ensure that the concerns of less developed countries to be taken into account, and finally ensure that a PATP distribution of benefits and burdens between states. In other words, the second order responsibilities of actors would be to ensure the fulfilment of the three demands of justice set out in the thesis. If this cannot be ensured, then second order responsibility implies 'at least enabling action' on these three demands, according to Caney's position.⁶³

At this point it is important to clarify what Caney means by 'ensuring' or 'at least enabling action,' in order to explain what second order responsibility entails. When Caney discusses ensuring/enabling action on second order responsibilities, he explains that agents operate

⁶⁰ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 134

⁶¹ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

⁶² Polluter's Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

⁶³ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 135

in social, economic, and political contexts, and it is possible to structure these contexts in ways which induce agents to comply with their first-order responsibilities.⁶⁴ For this reason, Caney argues that these contexts should be restructured to enable greater compliance with first order responsibilities.⁶⁵ This seems to imply that Caney's conception of 'ensuring' that first order responsibilities are met means restructuring the context in which agents operate, in order to 'enable' agents to meet their first order responsibilities. Put more simply, actors with second order responsibilities must 'enable' actors to comply with their first order responsibilities, by restructuring the context these actors operate in. Applied to this thesis, this means that actors who have institutional responsibility must 'enable' the three demands of justice by restructuring the context so that these demands can be met. This, then, is what the chapter means by 'enabling,' and what this term should be taken to imply from this point forward. 'Restructuring the context' is a notion which is left quite broad in Caney's work, and can include enforcing compliance through policy measures,⁶⁶ incentivizing actors by offering rewards for their action, creating norms which encourage compliance by making non-compliance seem unacceptable,⁶⁷ undermining resistance to compliance, for example through accurate media representation of climate change, and using civil disobedience to encourage governments to act.⁶⁸ This broad notion of restructuring the context will be adapted here, and the chapter will clarify how specific actors can enable the three demands of justice by restructuring the context below.

The second step to building on and addressing the limitations of Caney's approach is to define actors which are capable of meeting the above defined second order responsibility of enabling the three demands of justice, or in other words, enabling a condition of justice in the case of climate change. Although Caney lists a few potential actors who could bear second order responsibilities, for example 'firms, trade unions, churches, states, and international institutions,'⁶⁹ or 'government departments, journalists, scientists, writers, research councils, officials responsible for demographic policy, and charismatic individuals'⁷⁰ and mentions the 'WTO, the IMF and the World Bank'⁷¹ as potential enforcers, he does not explore any specific actors and their responsibilities in detail. More importantly,

⁶⁴ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 135

⁶⁵ *Ibid.*, p. 141

⁶⁶ *Ibid.*, p. 136

⁶⁷ *Ibid.*, p. 137

⁶⁸ *Ibid.*, p. 138

⁶⁹ *Ibid.*, p. 136

⁷⁰ *Ibid.*, p. 140

⁷¹ *Ibid.*, p. 139

Caney does not attempt to assess to what extent the actors he lists are meeting their second order responsibilities. For this reason, the thesis will build on Caney's argument and contribute to global justice and climate change debates by doing what Caney does not: choose specific actors, explain why they have second order responsibilities, and explore to what extent these responsibilities are being met.

This will add a significant amount of original research to the debate. Importantly, the thesis will also contribute to Caney's goal of creating a realistic approach which takes into account political and institutional realities. The thesis will contribute to this goal by conducting an investigation of institutional 'reality,' or what is here referred to as current institutional practice, with the aim of pinpointing responsible actors. This is a useful endeavor in terms of enhancing the 'realistic' element of Caney's two tier approach, but perhaps more importantly, this assessment of the institutional context conducted in Chapters Seven and Eight will reveal tentative positive trajectories and existing hindrances at the institutional level which need to be encouraged or overcome in order to ensure second order responsibilities are met in the future. The concluding chapter of the thesis, Chapter Nine, will draw on the findings made in Chapters Seven and Eight and provide a discussion on what future research on climate justice should focus on. This will meaningfully contribute to global justice and climate change debates, because it will facilitate future discussions on achieving a more just response to climate change.

Before the assessment of institutional context can commence, responsible actors must be identified. This means identifying actors that have the capability of enabling the three demands of justice defended in this thesis, by restructuring the context so that the demands can be met. The capability to enable the three demands of justice implies a moral responsibility to act, as was explained above. This moral responsibility to act will be referred to as institutional responsibility, a term unique to this thesis, which denotes the second tier responsibility to enable the three demands of justice explicated in this thesis. In this way, any confusion with Caney's position will be avoided, as he refers to his notion of institutional responsibility as second order responsibility. Although the thesis builds on his work, the first order responsibilities defined here are more expansive than Caney's, and the notion of second order responsibilities will be explored in significantly greater detail. For this reason, a new term is appropriate. The term institutional responsibility has been chosen because it will be used to explore responsibilities of actors in the current

institutional context of climate change governance. The thesis will now identify two types of actors as having the institutional responsibility of enabling a condition of justice: the actors operating under the UNFCCC and the actors operating within networked climate change governance processes. In order to assign institutional responsibility to these actors, it must be illustrated that they have the capability of enabling the three demands of justice set out in this thesis. This capability will be briefly explained below, and elaborated on in Chapters Seven and Eight, which concern the exploratory assessment of the extent to which actors within the UNFCCC and networked climate change governance processes are meeting their institutional responsibility.

As was explained earlier in the chapter, the UNFCCC provides a framework to assess progress and to negotiate policy and international treaties concerning climate change, referred to as Protocols. The ultimate objective of the UNFCCC is to achieve stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.⁷² It is quite clear that actors under the UNFCCC have the potential to affect climate change policy because these actors are charged with designing such policy. Actors in the UNFCCC are therefore arguably capable of enabling the three demands of justice, because these actors have the capability of restructuring the context so that the demands can be met, as will be explained below. Before this can be explained, it must be restated that states are the ultimate decision makers in the UNFCCC. For this reason, assigning institutional responsibility to actors under the UNFCCC implies assigning responsibility to states who are signatories to the UNFCCC.

In order to illustrate the capability of actors under the UNFCCC to enable the three demands of justice, each demand will be taken in turn. Demand One states that ‘the right to health⁷³ of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected.’ Chapters Four and Five explained that this requires that global temperature rise is kept at or below 2°C, because warming above this level will cause ‘dangerous effects’ which harm the human right to health.⁷⁴ The Intergovernmental Panel on Climate Change (IPCC) claims, at the time of writing, that to achieve this goal, emissions would have to be cut by 40% - 70% by 2050

⁷² UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 9

⁷³ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

⁷⁴ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

compared to 2010, and would need to be near zero or below in 2100.⁷⁵ Actors under the UNFCCC have the capability to enable Demand One because these actors can restructure the context to ensure that appropriate mitigation takes place. Actors in the UNFCCC are explicitly tasked with creating global treaties and agreements in order to ‘to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.’⁷⁶ In other words, the UNFCCC has been set up exactly for the purpose of developing policies in order to mitigate emissions. For this reason, the actors under the UNFCCC have the capability to make decisions which can enable Demand One, because they can restructure the context to ensure that emissions are kept to the required limit, which will ensure that effects of climate change are kept to a minimum, thereby protecting the right to health of future generations.

Demand Two states that the concerns of less developed countries must be properly considered in climate change action, and that the distribution of benefits and burdens in global climate change action should be based in the PATP⁷⁷ model. Actors under the UNFCCC have the capability to enable the first part of this demand because the UNFCCC creates a context within which this is possible. The UNFCCC includes 195 member states, and therefore encompasses almost every state in the world. This implies that actors under the UNFCCC have the capability of ensuring that the concerns of less developed countries are properly considered, because less developed countries are members of the UNFCCC and are included in climate change policy negotiations, and furthermore have the same voting rights as all other states. In this way, actors under the UNFCCC can include less developed countries in the decision making process, ensuring that their concerns can be taken into account. The second part of Demand Two calls for the distribution of benefits and burdens between states to be based on a PATP model. Actors under the UNFCCC have the capability to enable this because the UNFCCC has been charged with drawing up global treaties to, among other things, regulate the distribution of the benefits and burdens of

⁷⁵ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 14

⁷⁶ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 9

⁷⁷ Polluter’s Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

climate change. For this reason, the actors operating under the UNFCCC have the capability to change the context by designing global treaties to be based on the PATP model, therefore enabling the realization of this model.

Finally, Demand Three states that ‘capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause in line with their respective capabilities.’ Actors under the UNFCCC have the capability to enable this demand of justice because the UNFCCC is tasked with creating regulations around climate change, and can therefore create a context within which actors can meet their responsibilities. The UNFCCC creates regulations that assign a certain emissions target per state, and this in turn allows states to regulate the emissions of individuals, corporations, and sub-state entities within their borders. The UNFCCC also has the capability to set up fundraising targets which states could raise money for through taxes or fines on individuals, sub-state entities, and corporations. In this way, actors under the UNFCCC have the capability to enable the realization of Demand Three of justice, because these actors can design global treaties and create a context which allows actors to meet their responsibilities to lower emissions and make financial contributions. Furthermore, as was illustrated above, actors under the UNFCCC are also arguably capable of enabling the realization of Demands One and Two of justice. The conception of institutional responsibility defended above implies that actors under the UNFCCC therefore have the moral responsibility to enable Demands One, Two and Three, by creating a context in which these demands can be met. Chapter Seven will provide a detailed overview of this responsibility and an assessment of the extent to which the actors under the UNFCCC are meeting their institutional responsibility.

Now that the capability of actors under the UNFCCC has been briefly demonstrated, the capability of actors involved in networked climate change governance processes will be briefly outlined, with each demand being taken in turn. As was explained earlier in the chapter, actors working within networked governance practices can vary from individuals to corporations to sub-state entities, so when reference is made to ‘actors,’ these varied types of actors should be taken as implicit to the term. Actors involved in networked climate change governance processes do not operate under a global treaty or strive towards a unified goal, as was explained earlier in this chapter. In addition, as will be

further discussed below, networked climate change governance processes do not operate under international legal authority like the UNFCCC. However, it is still arguable that the actors involved in networked governance processes have the capability of enabling the three demands of justice set out in this thesis by creating a context in which these demands can be met.

Demand One states that ‘the right to health⁷⁸ of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected.’ As was explained above, this demand requires emissions to be kept at a certain level to prevent dangerous warming of the planet. Actors involved in networked climate change governance processes are capable of enabling this demand of justice because these processes include projects which have significant potential to substantially lower global emissions. In other words, these projects create a context in which Demand One can be enabled through the lowering of emissions. The capability of networked governance actors to lower emissions will be fully explored in Chapter Eight; two examples will be outlined below in order to briefly illustrate this capability. One networked governance project, the C40, is a group of cities which aim to reduce carbon emissions and increase energy efficiency in large cities across the world.⁷⁹ The members of the C40 account for one in twelve people worldwide, formally representing approximately 302 million people.⁸⁰ The potential emissions reductions from these cities is therefore significant, as will be explained in Chapter Eight. As another brief example, the Climate Group is a networked governance project which has members from both the public sector (e.g. Germany, California, and London) and corporate sector (e.g. M&S, BP, HSBC, Shell) worlds.⁸¹ This group funds projects such a global pilot program to bring light-emitting diode (LED) street lighting, which has 50-70% lower emissions than traditional lighting, to major global cities including London, New York, Hong Kong, Mumbai, and Calcutta.⁸² Initial results from the Climate Group’s pilot project in New York are pointing to emissions reductions of up to 80%.⁸³ The possible gains of this project are significant because street lighting accounts for 6% of

⁷⁸ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

⁷⁹ C40, ‘C40’ <http://c40.org/> [accessed 04.12.2014]

⁸⁰ Pattberg, P., ‘The Role and Relevance of Networked Climate Governance’ in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 151

⁸¹ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 82

⁸² Climate Group, *Lighting the Green Revolution* (2012) available from http://www.theclimategroup.org/assets/files/LED_report_web1%283%29.pdf [accessed 05.12.2014], p. 24

⁸³ *Ibid.*

global emissions levels, which is the equivalent of emissions from 70% of the world's passenger vehicles.⁸⁴ The Climate Group, through projects such as these, has the capability of significantly affecting global emissions rates, and therefore protecting future generations' rights to health. These examples will be elaborated on in Chapter Eight in order to illustrate the capability of actors involved in networked climate change governance to enable the realization of Demand One of justice by creating a context where this is possible. For now, these examples serve to very briefly illustrate this capability.

Demand Two states that the concerns of less developed countries must be properly considered in climate change action, and that the distribution of benefits and burdens in global climate change action should be based in the PATP⁸⁵ model. Actors involved in networked governance processes are arguably capable of enabling the first part of this demand, because networked governance processes allow for a context in which this demand can be met. Projects of networked governance can include actors from less developed countries, can focus on financing projects which meet less developed countries' concerns, and can ensure that less developed countries' voices are heard. Projects involved in networked governance processes are flexible enough to accommodate these types of aims. As will be illustrated in Chapter Eight, there are projects which include developing country founders, such as the Global Methane Initiative, which prides itself in being the only international effort to specifically target methane abatement, recovery, and use.⁸⁶ In addition, there are projects which take less developed country concerns into account, such as the Asian Cities Climate Change Resilience Network, which focuses on adaptation.⁸⁷ These examples will be elaborated on in Chapter Eight.

The second part of Demand Two can arguably be enabled by actors involved in networked governance processes if these actors create a context where Demand Two can be met. This

⁸⁴ Climate Group, 'LED Lighting' <http://www.theclimategroup.org/what-we-do/programs/LED/> [accessed 05.12.2014]

⁸⁵ Polluter's Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

⁸⁶ Global Methane Initiative 'About the Initiative' <https://www.globalmethane.org/partners/index.aspx> [accessed 13.05.2015]

⁸⁷ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 117

context could be created for example through information sharing or campaigning on the subject, which could build support for a PATP distribution of benefits and burdens between states. Networked governance projects often involve campaigning and advocacy, and actors within these processes frequently attend the annual UNFCCC COPs in the hopes of influencing decision making. In addition, networked governance projects can include states which are high emitting/and or wealthy and not held to account under the UNFCCC, therefore creating a context for these states to meet their responsibilities. For example, the Asia-Pacific Partnership on Clean Development and Climate (APP), which has now come to an end, consisted of Australia, Canada, China, India, Japan, South Korea and the United States of America.⁸⁸ With the exception of Australia, none of these states was held to account for lowering emissions and/or contributing financially under the UNFCCC at the time of the APP. For this reason, it is arguably possible for actors involved in networked governance processes to enable the second part of Demand Two of justice, by creating a context where wealthy and high emitting states are held to account for their responsibilities, which is required under the PATP model. This will be further discussed in Chapter Eight.

Finally, Demand Three states that capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause in line with their respective capabilities.’ Actors involved in networked governance processes are arguably capable of enabling this demand, because networked governance projects create a context which allows firms, sub-state entities, international institutions, and individuals to act on climate change. Involved in networked governance projects, these actors are, albeit mostly voluntarily, being held responsible for climate change action, and engaging in activities which involve both lowering emissions and making financial contributions to projects which fight against climate change. Chapter Eight will explore several networked governance projects which include specific actors, for example the Verified Carbon Standard, which involves corporations, and the Regional Greenhouse Gas Initiative, which involves federal states in the United States of America. Through these types of projects, actors involved in networked climate change governance processes are creating a context which incorporates new actors who were previously under no obligation to lower emissions under the UNFCCC. For this reason, it seems the actors

⁸⁸ Asia-Pacific Partnership on Clean Development and Climate, ‘About the APP’ <http://www.asiapacificpartnership.org/english/about.aspx> [accessed 29.12.2014]

involved in networked governance processes are capable of enabling Demand Three, because the networked governance projects they run and take part in create a context in which previously unregulated actors can commit themselves to lowering their emissions and making financial contributions, in line with Demand Three of justice. Furthermore, as was illustrated above, networked governance actors are capable of enabling Demands One and Two of justice. Under the logic of institutional responsibility, this implies that actors involved in networked governance processes can be held morally responsible for enabling Demands One, Two, and Three of justice. Chapter Eight will provide an exploratory assessment of the extent to which the actors involved in networked governance processes are meeting their institutional responsibility.

The above illustration of capabilities implies that under the logic of institutional responsibility, both actors in the UNFCCC and involved in networked climate change governance processes have the moral responsibility to enable the three demands of justice explicated in this thesis by restructuring the context so that these demands can be met. For this reason, it is worthwhile to explore to what extent these actors are living up to their responsibilities in Chapters Seven and Eight of this thesis. This is not to say that these are only two types of actors which have a moral responsibility to act. Other actors may well have similar institutional responsibilities. However, the two types of actors have been chosen because the thesis focuses on global climate change governance, and the UNFCCC and networked governance processes represent global climate change governance, as was explained earlier in this chapter.

It is also important to stress that it is the *capability* of the actors under the UNFCCC and within networked climate change governance to enable demands of justice which implies their institutional responsibility, and this responsibility is not affected by whether or not these actors are *likely* to enable the demands of justice defined in this thesis. As David Estlund has recently argued, the fact that an agent's action is unlikely, even extremely unlikely, does not entail that it is beyond the agent's ability.⁸⁹ To make his case, Estlund explains that there is a difference between impossible and improbable. Impossible implies that an agent cannot perform an action. Improbable, on the other hand, implies that an agent is capable of an action, but there is no chance that she will do it, that the (objective)

⁸⁹ Estlund, D., 'Utopophobia' in *Philosophy and Public Affairs*, 42 (2014) p. 117

probability of her doing it is zero.⁹⁰ He suggests that even a zero probability that an action will be performed does not entail inability.⁹¹ What Estlund is implying is that probability of an action does not affect the capability to perform an action. Since institutional responsibility has here been defended on the grounds of capability, and probability of action does not affect capability, then under this logic, probability of action does not affect institutional responsibility. Or, as Estlund puts it, ‘the likelihood that a person will not behave in a certain (entirely possible) way simply does not bear on whether they morally should: it is not a fact that has that kind of moral significance.’⁹² Therefore, even if the actors under the UNFCCC or networked climate change governance are unlikely to live up to their institutional responsibility, say for example because of a lack of political will, this does not take away from the duty these actors have to act on their institutional responsibility. It is capability that matters, morally, and not probability. Probability of an action does not affect the moral requirement of that action.

Now that the institutional responsibility of actors in the UNFCCC and networked governance processes has been established, the chapter turns to establishing whether either actors under the UNFCCC or actors involved in networked governance processes are more responsible for enabling the three demands of justice explicated in this thesis. This is important to explore because responsibilities must be clearly defined and laid out before the extent to which they are being met can be assessed.

Differences in Authority and Responsibility in Climate Change Governance

It has been established that both actors in the UNFCCC and involved in networked climate change governance processes have a responsibility to enable the realization of Demands One, Two, and Three, based in their respective capabilities do to so. However, there is an important difference between these actors which affects their responsibilities: the difference in their source of authority. Actors under the UNFCCC derive authority in a formal manner, while actors involved in networked governance derive authority more informally. These differences in authority will be explained below, and will be followed an explanation of what these differences imply for institutional responsibility in the case of climate change.

⁹⁰ Estlund, D., ‘Utopophobia’ in *Philosophy and Public Affairs*, 42 (2014) p. 119

⁹¹ *Ibid.*

⁹² *Ibid.*, p. 122

The differences in authority between actors in the UNFCCC and networked governance processes stems from the extensive disaggregation of authority in global governance, which is a result of the absence of clear authority, such as a world state.⁹³ Not only is there disaggregation of authority, there is also differentiation between types of authority in global governance. The concept of authority in global governance has been explored by a number of different authors in recent decades, resulting in multiple definitions and conceptions of what authority is and how authority is derived. For example, having authority can be defined as getting an actor to do what they would not do otherwise, or creating new preferences in actors who were previously indifferent or at odds, or even mobilizing new or different constituencies for political action.⁹⁴ For others, authority simply implies power: power to take the lead, power to make decisions, and power to implement policies. In fact, some global governance scholars use power and authority interchangeably.⁹⁵ There are also numerous conceptions of how authority can be derived. For example, one of the most formal means of obtaining authority in global governance is through legal authority.⁹⁶ Actors in the UNFCCC arguably possess this type of formal authority, because the Convention is based on an international treaty, which is considered the most robust form of international law.⁹⁷ Furthermore, the treaties, or protocols, that the actors in the UNFCCC decide upon are considered international law.⁹⁸ This provides actors under the UNFCCC with legal status, which arguably makes them authoritative agents in climate change governance. Another formal manner of obtaining authority is through delegated authority from another authoritative agent.⁹⁹ Actors under the UNFCCC arguably also possess this type of formal authority. The UNFCCC is made up of authoritative states, and these states delegate their authority onto the UNFCCC. The state is unquestionably an authoritative agent in global governance, largely because its leaders hold a democratic mandate from the people.¹⁰⁰ The UNFCCC has formally been delegated

⁹³ Rosenau, J. N., 'Governance in the Twenty-First Century' in Whitman, J. (eds.) *Global Governance* (Basingstoke: Palgrave MacMillan, 2009), p. 11

⁹⁴ Avant, D. D., Finnemore, M., and Sell, S. K. 'Who Governs the Globe' in Avant, D. D., Finnemore, M., and Sell, S. K., (eds.) *Who Governs the Globe?* (Cambridge: Cambridge University Press, 2010), p. 10

⁹⁵ See for example, Whitman, J., *The Fundamentals of Global Governance* (Basingstoke: Palgrave Macmillan, 2009), p. 14

⁹⁶ Pattinson, J., 'Humanitarian Intervention and International Law: The Moral Importance of an Intervener's Legal Status' in *Critical Review of International Social and Political Philosophy* 10 (2007), p. 302

⁹⁷ Lawrence, P., *Justice for Future Generations: Climate Change and International Law* (Cheltenham: Edward Elgar Publishing Ltd., 2014), p. 103

⁹⁸ *Ibid.*

⁹⁹ Avant, D. D., Finnemore, M., and Sell, S. K. 'Who Governs the Globe' in Avant, D. D., Finnemore, M., and Sell, S. K., (eds.) *Who Governs the Globe?* (Cambridge: Cambridge University Press, 2010), p. 11

¹⁰⁰ Bell, S. and Hindmoor, A., *Rethinking Governance: The Centrality of the State in Modern Society* (Cambridge: Cambridge University Press, 2009), p. 13

authority by the legal ratification of states who are party to the Convention.¹⁰¹ Actors under the UNFCCC therefore arguably possess a form of delegated authority. Finally, a third formal source of authority is the mandate to act. Actors in the UNFCCC arguably possess this type of formal authority. The Convention has been ratified by 195 states, encompassing and representing a large proportion of the global population. This implies that the UNFCCC has a global mandate to act on climate change. This provides actors in UNFCCC with authority, because they have global backing to take action on climate change. These three sources of formal authority combined illustrate the formal authority of the actors in the UNFCCC.

Actors operating within processes of networked climate change governance, on the other hand, do not derive authority in a formal manner. Networked climate change governance processes do not operate under a legally ratified international treaty, and are therefore not acknowledged under international law as having the legal status to act on climate change. This implies that the actors involved in networked climate change governance processes do not possess legal authority. Actors in networked climate change governance processes also do not derive authority from the delegation of state authority, as the actors in these processes are almost exclusively non-state actors. Networked governance processes also cannot be said to have a global mandate to act, because the projects taking place within these processes are not operating under a single global treaty or are backed by a global decision making procedure. For this reason, it is arguable that actors involved in networked governance processes have no formal authority in climate change.¹⁰² However, many global governance scholars make the case that agents in global governance can derive authority in less formal ways. For example, authority can be based on the service to a commonly accepted set of principles, morals, or values.¹⁰³ Actors involved in networked climate change governance arguably possess this source of authority because networked governance projects are based around the value of making an impact on climate change efforts. This is arguably a commonly accepted value, as there exists an institution with the global mandate to act on this value. Another source of informal authority is filling a recognized gap in regulation.¹⁰⁴ Networked governance projects bring together actors

¹⁰¹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 87

¹⁰² *Ibid.*, p. 88

¹⁰³ Avant, D. D. Finnemore, M., and Sell, S. K. 'Who Governs the Globe' in Avant, D. D., Finnemore, M., and Sell, S. K., (eds.) *Who Governs the Globe?* (Cambridge: Cambridge University Press, 2010), p. 13

¹⁰⁴ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate change governance* (Cambridge: Cambridge University Press, 2014), p. 87

which are currently under no obligation to lower emissions under regulation, as was explained above. This directly fills gaps in regulation, which indicates that actors involved in networked governance processes arguably derive informal authority from this source. Finally, another informal source of authority is capacity based. It is argued that if a community agrees that a task must be accomplished, then satisfying the community's preferences imparts authority to an actor.¹⁰⁵ The international community has established climate change as an urgent concern, by setting up a multilateral institution tasked with addressing it and charging an international body of scientists to research the problem and provide guidelines for action. This indicates that the international community has agreed that there is a task to be accomplished, namely to address climate change. Actors involved in networked climate change governance processes act to 'satisfy' the international community's 'preferences' by acting as if climate change is a problem, and attempting to provide solutions to the problem. Actors involved in networked governance processes therefore arguably derive informal authority from their capacity to address climate change. The three types of informal authority described above seem to imply that although actors involved in networked governance processes do not derive authority in a formal manner, these actors arguably possess informal authority in climate change governance.

It should be noted that there may be other sources of informal authority. The above merely serves to illustrate that actors involved in networked governance can be argued to possess informal authority. It is also worth noting that actors in the UNFCCC may derive authority from the informal sources described above, on top of the formal sources of authority outlined above. This would be unsurprising, as most actors in global governance are authorized by some mix of authority types.¹⁰⁶ However, this does not affect the argument that the actors in the UNFCCC and networked governance processes differ in the types of authority they possess. Actors under the UNFCCC possess formal authority, and actors involved in networked governance processes do not. This has implications for institutional responsibility, as will be explained below.

The Relationship Between Responsibility and Authority in Climate Change Governance

This chapter has argued that both actors under the UNFCCC and involved in networked governance processes have the institutional responsibility to enable a condition of justice in the case of climate change, because of their capability to do so. However, as was

¹⁰⁵ Avant, D. D., Finnemore, M., and Sell, S. K. 'Who Governs the Globe' in Avant, D. D., Finnemore, M., and Sell, S. K., (eds.) *Who Governs the Globe?* (Cambridge: Cambridge University Press, 2010), p. 13

¹⁰⁶ *Ibid.*, p. 18

illustrated above, the actors under the UNFCCC arguably possess formal authority, while actors in networked governance processes arguably only possess informal authority. The discussion below will illustrate why this may imply that actors under the UNFCCC possess greater institutional responsibility. However, it will be argued that if actors under the UNFCCC should fail to meet their institutional responsibility, then responsibility will fall on actors involved in networked climate change governance. In other words, the responsibility to meet a condition of justice falls on both types of actors until such a condition is achieved.

In order to illustrate this point, consider the following thought experiment. Imagine there exists a pool, which has a lifeguard specifically assigned to save individuals from drowning. By some terrible coincidence, three people suddenly begin to drown simultaneously in this pool. The lifeguard cannot possibly save all three people, because they are on opposite ends of the pool. The lifeguard has the formal authority to act, because the lifeguard has been hired to save individuals from drowning. She has also signed a legally binding contract of employment in which she has agreed to save drowning persons. She has been trained to save lives, and she possesses a buoy to help keep an individual afloat. She is arguably the most authoritative agent at the pool to intervene in a drowning, and is therefore the most responsible agent in case of a drowning, because formal authority has been vested in her to do so. However, the lifeguard cannot save all three individuals. Imagine now that the pool has bystanders, who are aware of the drowning people. Some of these bystanders know how to swim, and have been trained in basic first aid, including CPR. In other words, these bystanders have the capability to save drowning persons, but no formal authority to do so. According to the capability argument made by Singer, the capable bystanders would have the moral responsibility to save the drowning individuals the lifeguard is unable to save. This is because they have the capability to prevent a moral harm without sacrificing something equally morally important: they can prevent a death of an individual without putting their own lives in danger due to their capability to swim. In other words, even in the absence of authority, these capable actors are morally responsible, and should act accordingly. There seems to be no moral difference between the responsibility of the lifeguard and the capable bystanders in a scenario where the lifeguard cannot meet her responsibilities.

Further to this, now imagine a second scenario where only one person is drowning. In this scenario, the lifeguard had the capability to save the individual, and the authority to do so,

but is unwilling to act, because she is feeling tired, or lazy, or maybe does not care for the person who is drowning. According to the capability argument, this unwillingness to act would not take away from her moral responsibility to act. As was explained above, it is not the probability, but the capability of an actor which implies moral responsibility. Probability is not morally relevant, and so the fact that the probability of the lifeguard leaving her chair is low because of her lack of will to act does not affect her moral responsibility. Importantly, if the lifeguard does not, due to her lack of will, act on her responsibility to save the drowning individual, then the capable bystanders would have a moral responsibility to intervene, because the person charged with the authority to act would be failing to save the drowning person, as in the case of the three drowning persons above. In this scenario, as in the one above, the bystanders must jump in to save the drowning person, because of their capability to do so. It is not morally relevant to the bystanders whether the lifeguard will not or cannot save a drowning person, in both cases, the bystanders must intervene. The only case where the bystanders would not have to intervene is if the lifeguard saves the individual from drowning. In this case, the bystanders have no moral responsibility to help, because they are not capable of saving the individual, because the individual has already been saved. To reiterate the point made above, there is no moral difference between the responsibility of the lifeguard and the capable bystanders in a scenario where the lifeguard cannot, or will not, meet her responsibilities.

This type of argument has been made in relation to humanitarian intervention. James Pattinson argues that legal authority to act does not make a moral difference in a humanitarian emergency such as genocide. In this type of scenario, the most effective actor must act, even in the absence of formal authority. Pattinson's argument is based on the idea that a humanitarian emergency involves a violation of basic human rights on a massive scale.¹⁰⁷ Accordingly, it is of the utmost moral importance that the humanitarian crisis is effectively tackled.¹⁰⁸ It follows that it is paramount that the most effective agent be assigned the duty to intervene, so that the mass suffering which occurs in a humanitarian crisis can be stopped as soon as possible.¹⁰⁹ Importantly, effectiveness of an intervener is determined by whether it is successful at tackling the mass violation of basic human rights.¹¹⁰ Pattinson believes that the formal authority to intervene, or more specifically the

¹⁰⁷ Pattinson, J., 'Whose Responsibility to Protect? The Duties of Humanitarian Intervention' in *Journal of Military Ethics*, 7 (2008), p. 265

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*, p. 272

¹¹⁰ *Ibid.*, p. 265

legal authority to intervene, does not make a moral difference in this case. He believes that an intervener's legal status according to current international law plays little or no role in its moral responsibility.¹¹¹ According to current international law, legal interveners are those with expressed United Nation Security Council (UNSC) authorization and illegal interveners are those without it.¹¹² Pattinson argues that in the case of a humanitarian emergency, if faced with a choice between an ineffective but legal UNSC action, and an illegal humanitarian intervention by an effective agent, we should prefer the latter, other things being equal.¹¹³ Interestingly, Pattinson argues that if there were an international institution with legal authority and experience which could rapidly intervene in any humanitarian emergency, this would be desirable and indeed preferable to the most effective actor approach he defends.¹¹⁴ However, he explains that currently, this scenario does not exist because current international institutions are far from this ideal.¹¹⁵ His argument then is that until such institutions are developed, the most effective agents should intervene.¹¹⁶

Pattinson's argument directly relates to the lifeguard argument. In his scenario, the most effective (most capable of tackling the massive violation of human rights) actor has moral responsibility to act, even in the absence of authority. The most capable agent is like the bystander at the pool, who has no formal authority to act, but is capable of acting. The lifeguard in this case would be an actor with the UNSC mandate to act, which as Pattinson explains may not be the most effective actor in a humanitarian emergency, just as the lone lifeguard cannot effectively save three drowning persons in the pool, or will not act to save one drowning person. It seems that the lifeguard scenario and Pattinson's argument both point to the fact that although there may be an agent with formal authority who has the responsibility to act, if that agent is unable or unwilling to fulfil their moral responsibility, capable agents are morally required to act. This has implications for what the difference in authority between actors in the UNFCCC and involved in networked governance processes imply for institutional responsibility in the case of climate change.

¹¹¹ Pattinson, J., 'Humanitarian Intervention and International Law: The Moral Importance of an Intervener's Legal Status' in *Critical Review of International Social and Political Philosophy* 10 (2007), p. 302

¹¹² *Ibid.*

¹¹³ *Ibid.*, p. 314

¹¹⁴ *Ibid.*, p. 273

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*, p. 280

Actors in the UNFCCC are arguably comparable to the lifeguard in the pool scenario. They have the formal authority to act on climate change, and the capability of enabling the fulfilment of the three demands of justice, as was explained above. These actors therefore have primary responsibility to act before actors who do not have the authority to act, much like the lifeguard has the primary responsibility to act before bystanders do. However, if the actors in the UNFCCC were unable, or unwilling, to fulfil this responsibility, just as the lifeguard is unable to save three drowning people in the above scenario, or unwilling to save one individual, then the bystanders with capability but no formal authority are morally required to step in. In the case of climate change, the role of the capable bystander is played by the actors involved in networked governance processes, who although capable of enabling a condition of justice do not possess the formal authority to do so. This argument implies that if the actors in the UNFCCC are unable, or unwilling to meet their institutional responsibilities, then other actors capable of this, specifically actors involved in networked governance processes are morally required to act. Pattinson's argument has similar implications. He stresses that although it would be preferable for there to be an authoritative actor that can effectively intervene in cases of humanitarian emergencies, such an actor does not currently exist, and therefore the most effective actor has the moral responsibility to intervene. Pattinson's reasoning for this is that humanitarian interventions entail mass human rights violations, which must be brought to an end sooner rather than later. This makes his argument relatable to the climate change problem, because climate change, as explained in this thesis, will result in the mass violation of the human right to health. In the case of climate change, applying Pattinson's argument would entail making the case that the extreme rights violations related to climate change require effective actors to act, even in the absence of authority.

Importantly, Pattinson seems to be making his argument in the face of the institutional reality that humanitarian intervention currently operates in the absence of a capable, authoritative actor. The thesis will, in the chapters which follow this one, explore the institutional reality of climate change governance. Chapter Seven will explore to what extent the actors under the UNFCCC are meeting their moral responsibility to enable a condition of justice in the case of climate change. Actors under the UNFCCC have the formal authority to act on climate change, which gives these actors greater institutional responsibility, much like the lifeguard has a greater responsibility to save drowning individuals than a bystander. For this reason, the responsibilities of actors under the

UNFCCC will be examined as a priority. Chapter Seven will illustrate that a preliminary assessment reveals that actors under the UNFCCC fail to meet their responsibilities to enable a condition of justice. This implies that actors operating involved in networked climate change governance practices, much like the capable bystanders in the pool scenario, have the moral responsibility to act. Therefore, Chapter Eight will explore to what extent these actors are meeting their moral responsibility.

It should be noted that the presence of other capable actors at the pool, or in the case of this thesis in climate change governance, does not diminish the responsibility of the lifeguard, or indeed of actors in the UNFCCC. The presence of capable actors does not let the lifeguard or actors in the UNFCCC 'off the hook' in terms of moral responsibility. Actors under the UNFCCC are under a moral obligation to act, based in their capability to act, as was argued above. The presence of other capable actors does not diminish this moral responsibility. Actors in the UNFCCC must act on their responsibility until it is fulfilled and they can no longer contribute to enabling a condition of justice in the case of climate change. The only other possible manner in which actors under the UNFCCC could escape institutional responsibility is if actors under the UNFCCC were no longer capable of enabling a condition of justice, for example if the UNFCCC were to dissolve. Similarly, actors involved in networked climate change governance processes have the institutional responsibility to enable a condition of justice as long as they are capable of doing so. The only possibility of escaping moral responsibility for networked climate change governance actors is if actors under the UNFCCC were to fully enable all three demands of justice, and a condition of climate justice was therefore achieved. In this case, networked climate change governance actors would no longer be under a moral obligation to help, because they would no longer be capable of enabling a condition of justice, as this would already have been achieved by actors in the UNFCCC. This is comparable to the argument that the bystanders at the pool would have no moral responsibility to save a drowning individual if the lifeguard saved the individual, since the individual would already have been saved. The logic which underpins this argument stems from the moral argument that actors cannot be morally obligated to do what they cannot do.¹¹⁷ This is the logical inverse of the capability argument, which holds capable actors morally accountable. Only in the absence of capability, in the case of this thesis the capability to enable a condition of justice, is there absence of moral obligation. For this reason, although actors under the UNFCCC have the formal authority to

¹¹⁷ Lawford-Smith, H., 'The Feasibility of Collectives' Actions' in *Australasian Journal of Philosophy*, 90 (2011), p. 456

act and are therefore most responsible for enabling a condition of justice, as long as actors under the UNFCCC are failing to meet their responsibilities, actors involved in networked governance processes must step in, much like the bystanders at the pool. The chapter now turns to its final section, to explain how the thesis will assess whether actors in the UNFCCC and networked governance processes are meeting their respective institutional responsibilities.

Assessing Current Practice

The chapter has so far defined three demands of justice, outlined current institutional practice, and made the case for the moral responsibility of actors under the UNFCCC and within networked climate change governance to enable a condition of justice in the case of climate change. The two chapters which follow, Chapters Seven and Eight, will assess whether current institutional practice enables a condition of justice in the case of climate change. An overview of the methodology that will be employed to achieve this will be outlined below. As was explained above, in order to achieve a condition of justice in the case of climate change, the three basic demands of justice must be met. Furthermore, as was explained in the previous section, if these demands are to be met, they must be enabled, through a restructuring of the context. In order to assess whether actors under the UNFCCC and within networked governance processes enable a condition of justice, Chapters Seven and Eight will make use of a four point hierarchy, outlined below.

This four point hierarchy is based on the idea that in order to enable a demand of justice, the context must be restructured. One way of examining whether the context is structured in a way which makes it possible for demands of justice to be met is to examine whether policies for action are in place. 'Policies' is here used in a broad sense: the term captures enforcement mechanisms, incentives, creating norms, undermining resistance to effective climate policies, as Caney suggests,¹¹⁸ and other policies such as regulation for emissions or adaption finance, policies on inclusiveness, or policies on ensuring compliance. These types of policies have the potential to ensure that the institutional context is structured to enable the three demands of justice, as will be discussed in Chapters Seven and Eight. Of course, there are some issues with examining policies, because climate change policies can often contain ambiguities, which could be interpreted as creating a context which is conducive to climate justice, but do not imply that a condition of justice is guaranteed. This will be

¹¹⁸ Caney, S., 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens' in *The Journal of Political Philosophy* 22 (2014), p. 136

further discussed during the assessment of current institutional practice in Chapters Seven and Eight. For now, the current chapter will outline the hierarchy which will be used to explore to what extent actors under the UNFCCC and involved in networked climate change governance enable a condition of justice by restructuring the context to allow for this.

1. Actors in the institution enable the demand of justice – the demand of justice is unequivocally fulfilled in its entirety.
2. Actors in the institution are consistently working towards enabling the demand of justice – the demand of justice is not yet fulfilled, but there are policies in place which are consistently leading towards this goal.
3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.
4. Actors in the institution do not enable the demand of justice – there has been no promise or attempt to enable the demand of justice and there are no policies in place.

Chapters Seven and Eight will make use of this four point hierarchy to evaluate to what extent actors within current institutional practice enable the three demands of justice explicated in this thesis. Enabling a demand of justice is at the top of the hierarchy, because the demands of justice must be fulfilled in order to meet a condition of justice in the case of climate change. The fulfilment of a demand of justice is therefore the goal to aim for, which is why it sits at the top of the hierarchy. The hierarchy is important because it allows for the assessment of the extent to which actors in current institutional practice are able to meet the moral parameters set by this thesis. If current institutional practice fails to meet the moral parameters, the thesis can point to this, and discuss the hindrances which are in place at the institutional level. The objective of using the above hierarchy, then, is to make normative judgments about current institutional practice in order to investigate what moral conditions must be fulfilled to meet a condition of justice in the case of climate change. In this way, the thesis can provide normative criteria which can be used in future research on a just response to climate change.

It should be noted that the assessment of institutional practice may reveal that the demands set out in this thesis cannot be enabled by current institutional practice. If this is the case, the justice position will not be revised. Instead, the thesis will point out the

discrepancies between current practice and the normative demands made in this thesis. Therefore, assessing current practice does not imply compromising the demands of justice to fit with the reality of institutional practice. The demands of justice are the goal towards which current institutional practice should strive, and the assessment of practice will reflect this. As David Estlund argues, ‘the truth about justice is not constrained by considerations of the likelihood of success in realizing it.’¹¹⁹ The institutional reality of climate change governance does not affect the climate justice position defended in this thesis. For this reason, even if none of the demands of justice are met, it is still important to explain how and why current institutional practice could move towards meeting these.

Finally, and perhaps most importantly in terms of making an original contribution, an extensive review of the literature suggests that most cosmopolitan climate justice theorists do not investigate how their theory relates to current institutional practice.¹²⁰ Furthermore, if they do, cosmopolitan scholars only seem to assess multilateral climate change governance processes, and not networked climate change governance processes.¹²¹ The thesis will assess both types of climate change governance processes. This sets the thesis apart from other work on the subject of climate justice, and furthermore implies that the thesis makes a useful and important contribution to the climate justice literature. However, the assessment conducted in Chapters Seven and Eight should be considered exploratory and preliminary and does not purport to make definitive claim about the practice of the actors under the UNFCCC and within networked climate change governance. The assessment in these chapters is exploratory because a comprehensive assessment of climate change governance is not possible within the scope of this thesis, which places an emphasis on both the development of a climate justice position and the application of this position. This leaves somewhat limited space available for assessment, especially of the complex processes involved in current climate change governance practice. Nevertheless, Chapters Seven and Eight aim to illustrate how a climate justice position can be used in conjunction with climate change governance research, in order to create a bridge between

¹¹⁹ Estlund, D., ‘Utopophobia’ in *Philosophy and Public Affairs*, 42 (2014) p. 115

¹²⁰ See for example Page, E. A., *Climate Change, Justice and Future Generations* (Cheltenham, Edward Elgar Publishing Ltd., 2006), Hayden, P., ‘The Environment, Global Justice and World Environmental Citizenship’, in Garrett Wallace Brown and David Held (eds.), *The Cosmopolitanism Reader* (Cambridge: Polity Press, 2010), or Hayward, T., ‘Human Rights Versus Emission Rights: Climate Justice and the Equitable Distribution of Ecological Space’ in *Ethics and International Affairs*, 21 (2007), pp. 431 – 450

¹²¹ See for example, Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), Lawrence, P., *Climate Change and International Law* (Cheltenham, Edward Elgar Publishing Ltd., 2014), Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), or Harris, P., *What’s Wrong With Climate Change and How to Fix It* (Cambridge: Polity Press, 2013)

these two fields. As was explained in the Introduction, bridging these two fields is important because these scholars are concerned with complementary, yet separate, agendas.

Conclusion

This current chapter, Chapter Six, and the two which follow, Chapters Seven and Eight, make up Part III of the thesis, which concerns demonstrating how current institutional practice can be evaluated using the global justice position developed in Part II of this thesis. This current chapter served to provide conceptual clarification for the chapters which follow. The chapter began by restating the three demands of justice developed in Chapter Five. The chapter then turned to defining current institutional practice, and provided an overview of both multilateral and networked climate change governance processes. The chapter subsequently moved onto defining which actors can be held responsible for enabling the demands of justice defined in this thesis. It was argued that both actors under the UNFCCC as well as those involved in networked climate change governance processes have a moral responsibility to enable a condition of justice, due to their capability of creating a context in which the three demands of justice explicated in this thesis can be met. It was also argued that the actors under the UNFCCC have formal authority to act and are therefore more responsible for enabling a condition of justice in the case of climate change. However, it was explained that this does not diminish the moral responsibility of other actors, specifically those involved in networked governance processes, if the actors under the UNFCCC should fail to enable the three demands of justice explicated in this thesis. It was illustrated that actors under the UNFCCC and within networked governance processes will remain morally responsible for enabling a condition of justice until this is achieved. Finally, the chapter explained how the thesis will conduct its exploratory assessment of the extent to which actors in the UNFCCC and networked climate change governance processes meet their institutional responsibility. The thesis now turns to this assessment, beginning with Chapter Seven, which concerns multilateral climate change governance actors.

Chapter Seven – Assessing Multilateral Climate Change Governance

Introduction

This chapter makes up the second of three chapters which constitute Part III of this thesis: ‘Assessing Current Institutional Practice.’ The previous chapter, Chapter Six, defined which actors can be held responsible for enabling a condition of justice in the case of climate change, and set out a methodological framework to assess to what extent these actors meet their responsibilities. It was argued that both actors under the United Nations Framework for the Convention on Climate Change (UNFCCC) and actors involved in networked climate change governance processes have a moral responsibility to enable a condition of justice, due to their capability of ‘restructuring the context’ so that the three demands defended in this thesis can be met. It was also argued that the actors under the UNFCCC have formal authority to act and are therefore most responsible for enabling a condition of justice in the case of climate change. The purpose of the current chapter, Chapter Seven, is therefore to assess to what extent actors under the UNFCCC enable the three demands of justice developed in this thesis.

The assessment in this chapter is considered exploratory, and does not purport to make definitive claims about the practice of the actors under the UNFCCC. Rather, the chapter aims to illustrate how the climate justice framework developed in Part II of this thesis can be used to assess current practice. This has the wider purpose of bridging the gap between climate justice literature and climate change governance research by illustrating that climate justice theorists have the potential to provide normative insights into current practice, as was explained in the Introduction of the thesis. The assessment in this chapter is exploratory because a comprehensive assessment of the UNFCCC would not be possible within the scope of this thesis, which places an emphasis on both the development of a climate justice position and the application of this position. This allows somewhat limited space for the assessment of a complex process of governance that has been running for two decades. Nevertheless, the assessment conducted in this chapter aims to tentatively illustrate what the application of the climate justice position developed in this thesis can reveal about current global climate change governance practice.

The chapter will focus on both positive trajectories and current hindrances to meeting a condition of justice in the case of climate change. The aim of the chapter is to illustrate that while the actors under the UNFCCC have made promising normative commitments, which are arguably in line with the demands of justice explicated in this thesis, the practice of

these actors does not match up to their commitments. In other words, political reality is not living up to normative rhetoric. The chapter will make use of UNFCCC documents, including the Convention and the Kyoto Protocol, as well as academic literature concerning the UNFCCC, and will be organized as follows. The first part of the chapter will assess the normative commitments made by actors under the UNFCCC in the Convention and compare these directly to the practice of the actors under UNFCCC by assessing the Kyoto Protocol. The second part of the chapter will assess whether actors under the UNFCCC have the capacity to enable a condition of climate justice in the future by briefly commenting on the hindrances and positive trajectories associated with the current practice of the UNFCCC, and discussing the present state of negotiations in the lead up to the Conference of the Parties in Paris in late 2015, which is expected to produce a new legally binding treaty. The chapter will conclude with an overview of the findings made, as well as with an outline of what these findings imply for actors involved in networked climate change governance, which will be the subject of Chapter Eight.

It is important to note that the assessment of climate change governance conducted in this current chapter and Chapter Eight has heuristic value. Although the findings made may be intuitive in the sense that it is well known that actors under climate change governance are not adequately addressing the climate change problem, it is nevertheless valuable to systematically examine the positive trajectories and current hindrances facing global climate change governance. This type of exploration allows for research to go beyond intuition and assumption and provide specialized and detailed knowledge on the current situation. The importance of this cannot be understated, because intuitive thinking may not be adequate for explicating normative suggestions for reform toward a better condition of justice. A thorough examination of current practices provides a denominator from which to begin suggesting what is needed to ensure a just response to climate change. In other words, the current and subsequent chapters aim to systematically pinpoint what is going right, what is going wrong, and provide clarity on arguably intuitive notions of the failure of global climate change governance. In this way, these chapters illustrate that the normative assessment conducted in Part III can be used to underwrite future thinking about a more just global response to climate change.

Multilateral Climate Change Governance: A Justice Based Evaluation

Before the assessment of multilateral climate change governance can commence, the chapter will briefly explain how this assessment will be conducted. As was explained in Chapter Six, multilateral governance refers to the top down governance conducted under

the UNFCCC. The UNFCCC provides a framework for negotiating international treaties, referred to as Protocols, as well as to assess global progress in dealing with climate change. At the annual Conference of the Parties (COPs) the actors under the UNFCCC assess current measures taken, and work towards developing protocols and implementation measures. The most significant outcome of the COPs remains the first and only protocol: the 1997 Kyoto Protocol, which committed the developed countries to greenhouse gas (GHG) emission reduction and limitation targets.¹ Assessing multilateral governance is not a straightforward process, as the UNFCCC has achieved successes, but is also plagued by significant setbacks. In order to illustrate the achievements of the UNFCCC alongside the setbacks, the chapter will assess the UNFCCC both in *theory* and *practice*. What this implies will be explained below.

The *theory* part of the assessment will focus on the Convention on which the UNFCCC is based. The Convention is an international treaty, which aims to guide multilateral action on climate change. All decisions made at the COPs and all Protocols developed, including the Kyoto Protocol, are based on the ideas defended in this original treaty, which has been ratified by 195 countries. The Convention can be considered to represent the UNFCCC in *theory* because it outlines proposed action on climate change and clarifies normative reasons for this action. In other words, the Convention provides an overview of the ambitions of the actors under the UNFCCC. The Convention predates any concrete action on climate change, and so wholly represents what *ought to be done* according to the UNFCCC. In this way, it provides a list of normative principles to guide climate change action. The *practice* part of the assessment will focus on the Kyoto Protocol, because the Kyoto Protocol is the current 'plan for action' of the UNFCCC. The Kyoto Protocol was signed by more than 150 countries in 1997. It has recently been extended to cover the period 2013 - 2020, during which time additional complementary agreements will be negotiated, most crucially at the next COP in Paris, as will be explained below. Although the Kyoto Protocol will eventually be replaced, at the time of writing, it is the only Protocol of the UNFCCC, and encompasses the scope of climate change action under the UNFCCC to date. The Kyoto Protocol represents the UNFCCC in *practice* because it represents the current action being taken by the UNFCCC.

It is important to evaluate both the *theory* and *practice* of the UNFCCC in order to gain a fair assessment of multilateral governance. Assessing *theory* and *practice* can capture both

¹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 62

the ambitions of actors under multilateral governance as well as how these actors meet these ambitions in practice. This allows an understanding of both what actors under the UNFCCC aim to achieve and what has been achieved so far. Assessing only aims would be problematic because it would not reveal whether these aims have been fulfilled. Assessing only achievements, on the other hand, would be problematic because it would be difficult to assess to what extent action matches ambition. As will be discussed throughout the chapter, actors in the UNFCCC often set out normative commitments within the Convention which are arguably in line with the demands of justice defined in this thesis. And yet, the achievements of the UNFCCC do not suggest the demands of justice are fully enabled by the UNFCCC. It is important to investigate why this is, and this would not be possible without an understanding of the UNFCCC's ambitions.

One possible explanation for the disconnect between the UNFCCC's ambitions and its achievements is the ambiguous nature of the commitments made in the Convention. The vague nature of these commitments is sometimes referred to as 'constructive ambiguity' because this ambiguity is not accidental.² During negotiations, the Parties of the UNFCCC often seek flexible language to accommodate the diverging positions of parties.³ Common ambiguities include the use of 'shall' instead of 'will' or 'must,' and the frequent use of 'should' instead of these more peremptory words.⁴ This can be problematic, because these ambiguities imply that commitments can be interpreted in different ways, which calls into question what the actors under the UNFCCC have committed to, and what this commitment will mean in practice. Hayley Stevenson and John Dryzek have critiqued this use of ambiguity, claiming that 'instead of constructive politics, we get constructive ambiguity.'⁵ For this reason, although it may appear that the commitment or ambitions of the actors in the UNFCCC are in line with the demands of justice, this does not guarantee that the demands will be enabled. This will be further discussed throughout the chapter.

The assessment of the UNFCCC will take each demand of justice in turn, and assess to what extent actors under the UNFCCC enable this demand in *theory* and in *practice*. The assessment will make use of the four point hierarchy developed in Chapter Six, which is outlined below for the purpose of clarity.

² Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 70

³ *Ibid.*

⁴ *Ibid.*

⁵ *Ibid.*, p. 84

The Four Point Hierarchy

1. Actors in the institution enable the demand of justice – the demand of justice is unequivocally fulfilled in its entirety.
2. Actors in the institution are consistently working towards enabling the demand of justice – the demand of justice is not yet fulfilled, but there are policies in place which are consistently leading towards this goal.
3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.
4. Actors in the institution do not enable the demand of justice – there has been no promise or attempt to enable the demand of justice and there are no policies in place.

Demand One – The Right to Health of Future Generations

Demand One states that the right to health⁶ of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected. As was explained in Chapter Four, Five, and Six, in order for this demand to be met global temperature changes must be kept at or below 2°C. This is because changes in temperature above this will result in ‘dangerous climate change,’ including wide scale floods, droughts, heat-waves, sea-level rises, and forced migration, all of which threaten the right to health, as explained in Chapter Four.⁷ Although keeping global temperatures at or below 2°C is looking increasingly unlikely due to current inaction, the IPCC maintains, at the time of writing, that there are multiple mitigation pathways that are *likely* to limit warming to below 2°C.⁸ According to the IPCC, emissions will have to be cut by 40% - 70% by 2050 compared to 2010, and will need to be near zero or below in 2100.⁹ Therefore, when assessing to what extent actors under the UNFCCC are enabling Demand One of justice, the section will refer to the 2°C goal and investigate to what extent actors under the UNFCCC are working towards this.

The chapter now turns to assessing the UNFCCC in *theory* by assessing the ambitions set out in the Convention. This will illustrate whether the actors of the UNFCCC ‘have promised

⁶ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

⁷ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf www.ipcc.ch/ [accessed 04.11.2014], p. 14

⁸ *Ibid.*

⁹ *Ibid.*

to begin working on enabling the demand of justice in the future' which would place actors under rung three of the four point hierarchy above. The Convention does not contain any action plans or emission level restrictions, but is rather a list of intentions or ambitions, so it cannot represent more than a commitment to enable Demand One of justice. The Convention is a thirty three page document of agreements made by the Parties to the Convention, consisting of twenty-six articles. Relevant articles from the treaty will be used below in order to illustrate to what extent the commitments made in the convention match up to Demand One of justice. The assessment will first concern the preamble of the Convention, before examining relevant articles in the body of the Convention. The preamble, although not legally binding, sets the tone of the Convention and is therefore important to consider alongside the main body of the treaty.

The preamble of the Convention claims that 'the Earth's climate and its adverse effects are a common concern of humankind.'¹⁰ The use of 'common concern of humankind' implies that all humans are included in the scope of climate change concern. This indicates that all humans must be considered equal, without any qualifications such as when or where they are born. This is arguably in line with Demand One, which asserts that the rights of present and future generations must be considered morally equal. Furthermore, the preamble states that actors under the UNFCCC are 'determined to protect the climate system for present and future generations.'¹¹ Again, this is arguably in line with Demand One, because the UNFCCC aims to protect the climate system for present and future generations without any qualifications highlighting a moral difference between these generations. However, under international law, the preamble of a treaty is not considered legally binding. For this reason, it is important to investigate whether the legally binding articles of the Convention reflect the sentiment of the preamble.

One of the most significant articles in terms of future generations is Article 3.1 of the Convention, which states that 'the Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity.'¹² The wording of this article indicates that present and future are considered equally important reasons to protect the climate. The use of the word 'equity' is particularly interesting. Although equity does not imply equality, but rather fair treatment, this speaks to the idea that future generations should be treated equally. If fair treatment of future generations is considered,

¹⁰ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 2

¹¹ *Ibid*, p. 6

¹² *Ibid*, p. 9

as it is in this thesis, as equal treatment, then the Article 3.1 can be interpreted as in line with Demand One. However, the fact that Article 3.1 can be interpreted in different ways is indicative of the ambiguity of its wording, which will be further discussed below. First, it is important to note that the wording of Article 3.1 implies that future and present generations are considered equally important, as they are mentioned as reasons to act against climate change without any conditions explaining that one group is morally more important than the other. Peter Lawrence agrees with this assessment. His work investigates to what extent current international climate change law protects the rights of future generations. Lawrence argues that the principle of intergenerational justice is reflected in Article 3.1 of the UNFCCC.¹³

However, Lawrence also points out that Article 3.1 is vague, or ambiguous, because there is no guidance on how to balance the needs of present and future generations.¹⁴ He explains that the vague nature of Article 3.1 stems from the political disagreement which occurred over its wording.¹⁵ The political disagreement revolved around the fact that the United States of America (US) did not want the Article to have legal consequences outside of the UNFCCC.¹⁶ The US successfully lobbied for the wording in Article 3.1 to be changed from 'states' to 'parties' so that the Article would only apply in the context of the UNFCCC, and not as international law on climate change more generally, which would allow to the US to opt out of commitments in future (which they did, by not ratifying Kyoto Protocol, as will be discussed below.)¹⁷ This is a good example of a 'constructive ambiguity,' or the ambiguity that is inserted into a commitment in order to accommodate the diverging positions of parties.¹⁸ As was explained above, these constructive ambiguities can cause problems, because although they may ensure consensus, they leave the question of what is actually being committed to very much open to interpretation. This may allow states to avoid action on climate change in future, because they can argue that their interpretation of obligations did not imply stringent action.

Although the ambiguous nature of Article 3.1 is indisputable, the wording of the article nevertheless seems to fall in line with Demand One of justice explicated in this thesis. It is

¹³ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 13

¹⁴ *Ibid.*, p. 100

¹⁵ *Ibid.*

¹⁶ Bodansky, D., 'The UN Framework Convention on Climate Change: A Commentary' in *Yale Journal of International Law* 18 (1993), p. 501

¹⁷ *Ibid.*, p. 502

¹⁸ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 70

possible to argue that Article 3.1 can be seen as a commitment to treat future and present generations as morally equal, which is in line with Demand One. This is important, because enabling a demand of justice has been defined as creating a context under which this is possible. The commitments made in the Convention set the context for climate change action, in the sense that they set out the ambitions of the UNFCCC, which allows for the UNFCCC to take action in line with these ambitions. Therefore, although the ambitions are, in the case of Article 3.1, ambiguous, they can be interpreted as in line with Demand One, which creates a context where Demand One can be met. Of course, this does not imply that Demand One will definitely be met, or even that it is *likely* that it will be met, but it does mean that it is not impossible for the UNFCCC to consider future generations as morally equal to present generations. This provides room for enablement, which will do doubt take political will. What is important is that there is room, or scope, for enablement. Whether actors under the UNFCCC treat future generations as equal to present generations in practice is another matter that will be explored below. Arguably the action of the actors under the UNFCCC will reveal more about the commitment to protecting future generations than the statements made Article 3.1. It is important to see how well the commitments match up to institutional practice in order to gauge whether the UNFCCC creates a context where Demand One can be met.

In addition to requiring the equal moral status of present and future generations, Demand One also states that climate justice should be grounded in the human right to health, defined in Chapter Four as ‘the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.’ It is not possible for the UNFCCC to make use of this definition of the right to health, as it is unique to this thesis. However, the Convention mentions health as a factor which must be considered in Article 4.1f, where the Convention aims to ‘take climate change considerations into account... and employ appropriate methods... with a view to minimizing adverse effects on the economy, on *public health*¹⁹ and on the quality of the environment.’²⁰ In addition, ‘adverse effects to humankind’ caused by climate change are defined in the Convention as effects on ‘the operation of socio-economic systems or on *human health* and welfare,’²¹ indicating that the UNFCCC considers adverse effects to health as one of the reasons to act on climate change. In other words, the Convention bases its concerns about the effects of climate change, at least partially, on human health.

¹⁹ Emphasis added.

²⁰ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 11

²¹ *Ibid.*, p. 2

For this reason, it is possible to claim that actors under the UNFCCC see the protection of human health as a reason to act on climate change. It is therefore plausible to argue that the actors under the UNFCCC have committed themselves to protecting the right to health, because acting on climate change explicitly indicates addressing the risk to human health according to the Convention. Of course, this is a matter of interpretation. However, as was explained above, the fact that the UNFCCC's ambitions can be interpreted as in line with Demand One, means that the actors under the UNFCCC create a context where Demand One can be met. Again, this this does not imply that Demand One will definitely be met, or even that it is *likely* that it will be met, but it does mean that it is not impossible for the UNFCCC to consider the right to health as a reason to act on climate change.

Furthermore, as was explained above, Article 3.1 indicates that future generations and present generations could be considered morally equal. Therefore, when the UNFCCC considers the risk to health, it is plausible to assume this risk to health refers to the risk for both present and future generations. For this reason, the Convention indicates that the actors under the UNFCCC are on the third rung on the hierarchy in terms of Demand One:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

The potential to create policy lies in the ambitions of the Convention and the fact that a framework for the creation of policy has been established under the UNFCCC. Articles in the Convention which can be interpreted as ambitions to treat future generations equally to present generations and which take human health as a factor for acting on climate change indicates a potential for policy to make good on these ambitions. In addition, it indicates that the parties of the UNFCCC view these issues as important. However, since the Convention does not set any mandatory mitigation targets and timetables, the ambitions in the Convention alone are not enough to fully protect the rights of future generations, and therefore the Convention cannot be said to be consistently working towards enabling the demand, which would place it on the second rung of the hierarchy. For this reason, it is important to investigate the current action of the actors under the UNFCCC, enshrined in the Kyoto Protocol, to assess whether the actors under the UNFCCC can live up to their ambitions and implement policies which enable Demand One of justice. The Kyoto Protocol is a treaty that further institutionalizes the Convention. In international law, a Protocol can usually amend a treaty or add additional provisions. In the case of

climate change, the Convention establishes a normative framework for developing mitigation and adaptation strategies, and the Kyoto Protocol contains specific provisions and regulations to achieve this. Therefore, ideally, the Kyoto Protocol should make good on the ambitions made by the Convention in the form of policy. However, as will be illustrated below, this is arguably not the case, and the Kyoto Protocol cannot be said to represent a policy which enables Demand One of justice for a number of reasons.

To begin with, the Kyoto Protocol does not mention future generations or the right to health. However, as the Protocol is a plan of action to implement the Convention, this may not be important, as the Convention sets ambitions that are in line with Demand One. The Kyoto Protocol attempts to implement the UNFCCC's ambitions, and therefore does not have to explicitly restate these ambitions to enable Demand One of justice. It is perhaps more important to explore whether the Kyoto Protocol is able to protect the right to health of future generations. As was explained above, this involves limiting the global temperature increase to 2°C. Unfortunately, the Kyoto Protocol cannot be said to be seriously contributing to this goal for several reasons. The first reason is that the Kyoto Protocol did not originally include the 2°C target. This target was only affirmed at the 2009 Copenhagen Accord, and only applies to the second, and current, commitment period of the Kyoto Protocol.²² However, even though the UNFCCC has affirmed the 2°C goal, the current commitment period of the Kyoto Protocol only aims to lower emissions by 'at least 18% below 1990 levels in the commitment period 2013 to 2020.'²³ This is in comparison to the original commitment period, which aimed to reduce overall emissions to at least 5% below 1990 levels in the commitment period 2008-2012.²⁴ As was explained above, the current IPCC report calls for emissions to be lowered by 40 – 70% of 2010 levels by 2050 in order to keep warming to 2°C. Lowering emissions to 18% of 1990 levels by 2020 does not seem in line with this requirement, because 1990 levels were substantially lower than 2010 levels. The growth rate of emissions increased from 1.5% a year in 1980 – 2000 to 3% a year in 2000 – 2012.²⁵ It therefore seems that the Kyoto Protocol cannot be said to represent policy which prevents dangerous climate change, and therefore protects the right to health of future generations.

In fact, Stephen Gardiner argues that the targets set by the Kyoto Protocol are much too

²² Hansen, J., et al. 'Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature' in *Plos One*, 8 (2013), p. 2

²³ UNFCCC, *Doha Amendment to the Kyoto Protocol*, United Nations, Doha (2012), p. 4

²⁴ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 104

²⁵ Hansen, J., et al. 'Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature' in *Plos One*, 8 (2013), p. 1

weak, which indicates that the Protocol does little to protect future generations.²⁶ Gardiner accuses the Kyoto Protocol of being 'at best, a prudent wait-and-see policy for the present generation, narrowly defined.'²⁷ Therefore, Gardiner concludes that the Kyoto Protocol does not seem like a sincere global initiative to protect the interests of future generations.²⁸ This appears to be a fair assessment, considering that even if the initial period of the Kyoto Protocol had met its targets, this would have only reduced global emissions by 5%.²⁹ This is due to the weak targets, but also due to the fact that the Kyoto Protocol only sets targets for a handful of industrialized countries, excluding some of the currently highest emitters: Brazil, China, and the US, significantly weakening the number of emissions which must be reduced under the Kyoto Protocol.³⁰ This will be further discussed when the chapter turns to Demand Two and the enablement of Demand Two below.

Furthermore, although the Kyoto Protocol sets specific targets, the Protocol does not set up any compliance mechanisms for failure to meet these targets. Instead, any emissions reductions which are not met can be, 'on request... be added to the assigned amount for subsequent commitment periods.'³¹ This is indicative of a very loose and voluntary compliance system, where states are not obligated to meet targets in the current commitment period, and if they do not, it is up to them to make up for this in later commitment periods. This lack of compliance measures has several different consequences. The first is that the Kyoto Protocol is failing to meet the targets it set out: few countries will meet their targets and face no real penalty for failing to do so.³² The second consequence of weak compliance mechanisms is that countries do not face penalties for leaving the Kyoto Protocol, or for not joining in the first place. This allowed the US not to join the Protocol. As the US is currently one of the top global emitters, and one of the richest countries in the world, this seriously undermines the potential of the Kyoto Protocol. The weak compliance mechanisms have also led to states refusing to participate in the second round of the Protocol when it became clear that they could not fulfil their commitments: Canada, Japan, Russia, and New Zealand have refused to participate in the second

²⁶ Gardiner, S., 'The Global Warming Tragedy and the Dangerous Illusion of the Kyoto Protocol' in *Ethics and International Affairs* 18 (2004), p. 24

²⁷ *Ibid.*

²⁸ *Ibid.*, p. 36

²⁹ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 21

³⁰ Climate Action Network Europe, *The Climate Change Performance Index* <https://germanwatch.org/en/download/10407.pdf> [accessed 26.01.2015], p. 12

³¹ UNFCCC, *Kyoto Protocol To The United Nations Framework Convention On Climate Change*, United Nations, Kyoto (1998), p. 5

³² Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 2

commitment period.³³ These are major emitters, and their lack of participation raises grave concerns over whether actors under multilateral governance enable Demand One of justice, because these actors are not creating a context where Demand One can be met, because emissions are not being controlled in a way which protects the human right to health.

As a result of the weak targets and weak compliance measures outlined above, emissions levels have continued to rise in the past decades, rendering the 2°C target increasingly unattainable. The latest IPCC report claims that GHG emissions have continued to increase over 1970 to 2010 with larger absolute increases between 2000 and 2010, despite a growing number of climate change mitigation policies.³⁴ The IPCC estimates that because economic growth is set to persist, and global population is set to increase, mean global surface temperatures could rise by as much as 4.8°C by 2100 without additional efforts to reduce GHG emissions beyond those in place today.³⁵ The IPCC expresses ‘high confidence’ that this would result in high to very high risk of severe, widespread, and irreversible impacts globally.³⁶ In addition, Hansen et al. explain that it will become exceedingly difficult to keep warming below a target of 2°C, if high emissions continue much longer.³⁷ For this reason, it is possible to make the case that actors under the UNFCCC are currently not living up to the ambition to enable Demand One, because the context for meeting this demand has not been created under the UNFCCC. The right to health of future generations is not being protected because, at the time of writing, the UNFCCC’s impact on the global level of emissions has not been in line with what is necessary to achieve the goal of no more than 2°C warming. For this reason, actors under the UNFCCC fall on the third rung of the four point hierarchy, because actors under the UNFCCC have not put into place policies which are consistently leading towards enabling Demand One of justice. Instead:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

The potential to create policy lies in the ambitions of the Convention and the fact that a framework for the creation of policy has been established under the UNFCCC. In addition,

³³ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 2

³⁴ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 5

³⁵ *Ibid.*, p. 14

³⁶ *Ibid.*, p. 12

³⁷ Hansen, J., et al. ‘Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature’ in *Plos One*, 8 (2013), p. 6

the Kyoto Protocol has created policies which although not in line with the targets suggested by the IPCC, nevertheless indicate that there is an existing policy framework which can be built upon. This indicates that creating a context where Demand One of justice is met is not impossible, but perhaps currently improbable. In sum, actors under the UNFCCC may have arguably aimed to enable Demand One of justice, but are failing to put adequate policy into place in *practice* in order to enable Demand One. The targets which have been set are too weak and on top of this are not being complied with. These two issues present key hindrances that must be overcome in future in order to bring about a just response to climate change. More must be done to protect the right to health of future generations by keeping temperature changes to 2°C. This will be further discussed in the second part of the chapter, which concerns the practices of the UNFCCC and the future of multilateral climate change governance.

Demand Two – Less Developed Countries

Demand Two states that the concerns of less developed countries must be properly considered in climate change action (this will be referred to as part one of Demand Two below, for the sake of clarity). In addition, the distribution of benefits and burdens in global climate change action should be based in the PATP³⁸ model (this will be referred to as part two of Demand Two below). Mirroring the assessment above, the chapter will first discuss to what extent actors under the UNFCCC enable Demand Two in *theory* by examining the preamble and main body of the Convention before exploring to what extent these actors enable the demand in *practice* by examining the Kyoto Protocol. The chapter will examine the two parts of Demand Two in turn, beginning with the first part of Demand Two, which states that the concerns of less developed countries must be properly considered in climate change action. Chapter Five outlined three main less developed country concerns, which must be properly considered under Demand Two. These are: 1) the acknowledgment that developed countries have contributed most to the climate change problem, 2) that less developed countries face greater immediate problems which must be addressed before they can act on climate change, and 3) that less developed countries have a right to develop before they must make contributions to climate change efforts. These three

³⁸ Polluter's Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

concerns must be taken into account by actors under the UNFCCC in order to meet the first part of Demand Two. Chapter Five explained that the category of less developed country is contested, and will be defined in this thesis in line with the categories of the UNFCCC, which refers to less developed countries under the categories of non-Annex I and Least Developed Countries. This is a broad category, and for this reason the differences between richer, larger less developed countries like the BRICS (Brazil, Russia, India, China, South Africa) countries, and those countries which are very poor and vulnerable to climate change will be kept in mind and referred to in the assessment which follows.

The preamble of the Convention arguably takes each of the three less developed countries' concerns into account. In terms of acknowledging that developed countries have contributed most to the problem, the preamble puts the burden of responsibility on developed countries, because 'the largest share of historical and current global emissions of greenhouse gases has originated in developed countries,'³⁹ and urges developed countries to take 'immediate action.'⁴⁰ Furthermore, the preamble notes that 'the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low.'⁴¹ The wording here indicates that the preamble is placing primary responsibility on developed countries, which is in line with the first less developed countries' concern. In terms of having more immediate concerns and a right to develop, which are the second and third less developed countries' concerns, the preamble of the Convention acknowledges that 'the share of global emissions originating in developing countries will grow to meet their social and development needs.'⁴² This is not viewed as problematic in the Convention, as long as 'responses to climate change [are] coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty.'⁴³ This indicates that the preamble of the Convention is taking into account that less developed countries will need time to develop before they contribute to climate change efforts, partly because they face more immediate concerns such as the eradication of poverty. The preamble indicates that actors under the UNFCCC are stating their ambition to take less developed countries' concerns into account. However, as explained above, the preamble of

³⁹ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 2

⁴⁰ *Ibid.*, p. 4

⁴¹ *Ibid.*, p. 2

⁴² *Ibid.*

⁴³ *Ibid.*, p. 9

the Convention is not legally binding, and so it is important to explore the legally binding articles of the Convention to ascertain whether these live up to scale of ambition of the preamble.

The Convention arguably makes commitments that indicate that actors under the UNFCCC are properly considering concerns of less developed countries. For example, Article 3.2 of the Convention notes that ‘the specific needs and special circumstances of developing country Parties... should be given full consideration.’⁴⁴ This is very much in line with the first part of Demand Two. However, the language here is quite vague and ambiguous. Nevertheless, the fact that the Convention states that less developed countries should be given full consideration indicates that there is room for the enablement of the first Part of Demand Two, because the UNFCCC is setting up a context where this is possible. Of course, this does not imply that the first part of Demand Two will definitely be met, or even that it is *likely* that it will be met, but it does indicate that it is not impossible for the actors of the UNFCCC to fully consider the concerns of less developed countries. Even so, the ambiguous wording of Article 3.2 suggests that it is important to explore whether there are more specific commitments made in the Convention.

The most significant manner in which less developed countries’ concerns are taken into account lies in the fact that the Convention calls on developed countries to assist less developed countries with developing in a climate conscious manner. This potentially meets all three less developed countries’ concerns because it places responsibility on developed nations, acknowledges that less developed countries have urgent concerns which must be addressed and with which they require assistance, and that less developed countries have the right to develop. To illustrate, Article 3.5 states that ‘the Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change.’⁴⁵ Enabling a demand has been defined as creating a context within which the demand can be met, and Article 3.5 seems to speak to this by referring to an open and economic system within which less developed countries can develop and address climate change. Importantly, the concept of promoting a supportive system is broken down into smaller examples, three of which will be outlined below: adaptation, financial transfer, and technology transfer. There are additional examples of how developed countries should

⁴⁴ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 9

⁴⁵ *Ibid.*, p. 10

help less developed countries according to the Convention, the three examples below merely serve as an illustration of some of the main responsibilities of the developed countries as stipulated by the Convention.

In terms of adaptation, Article 4.1e calls on all parties to ‘cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods.’⁴⁶ In addition, Article 4.4 states that ‘the developed country Parties... shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.’⁴⁷ From this responsibility to support adaptation stem two further responsibilities: financial and technological transfer. Article 4.3 of the Convention states that ‘the developed country Parties... shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties.’ Article 4.5 states that ‘the developed country Parties... shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention.’⁴⁸ These Articles illustrate that the Convention aims to help less developed countries with adaptation specifically through financial transfer, and transfer of technologies, which should assist these countries to develop cleanly. These specific tasks seem to indicate that the Convention is enabling the first part of Demand Two by creating a context where less developed countries concerns can be taken into account through specific actions, which place the primary role on developed countries and place no obligations on less developed countries, which allows these countries to address more immediate concerns, and acknowledges less developed countries’ right to develop with the help of technological and financial transfers. For this reason, the actors under the UNFCCC fall on the third rung of the four point hierarchy in the case of the first part of Demand Two:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

⁴⁶ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 11

⁴⁷ *Ibid.*, p. 14

⁴⁸ *Ibid.*

The potential to create policy lies in the ambitions of the Convention and the fact that a framework for the creation of policy has been established under the UNFCCC. The ambition to include less developed country concerns indicates a potential for policy to make good on this commitment, and the existing framework put in place under the UNFCCC indicates potential for policy to be created. This provides room for enablement, because the creation of such policies would create a context within which less developed countries' concerns could be taken into consideration. This room for enablement does not guarantee that the first part of Demand Two will be met, but nevertheless indicates that this is possible. Whether actors under the UNFCCC take the concerns of less developed countries into account in practice is another matter which will be explored below. It is important to see how well the ambitions of the convention match up to institutional practice in order to gauge whether the UNFCCC creates a context where the first part of Demand Two can be met.

The assessment below will illustrate that the Kyoto Protocol can be viewed as an attempt of the actors under the UNFCCC to make good the ambitions of the Convention to properly consider less developed countries' concerns in climate change action. However, in practice, the UNFCCC has not provided a framework where less developed countries are properly included in negotiations. This will be further discussed in the second part of the chapter, which concerns the practices and procedures of the UNFCCC. For now, it is important to assess the manner in which the Kyoto Protocol attempts to include the concerns of the less developed countries as set out in the Convention. Article 3.14 of the Protocol states that the Parties of the Protocol must 'consider what actions are necessary to minimize the adverse effects of climate change and/or the impacts of response measures on developing country Parties. Among the issues to be considered shall be the establishment of funding, insurance and transfer of technology.'⁴⁹ This relates directly back to the ambition set in the Convention concerning funding adaptation, which seems to imply that the Kyoto Protocol is attempting to institutionalize the ambitions of the Convention.

The Kyoto Protocol establishes several ways in which funding for adaptation can be achieved. First, the Protocol is clear on the fact that the finance provided for adaptation must be separate to any other development financing. In Article 11.2, the Protocol establishes that developed countries must 'provide new and additional financial resources

⁴⁹ UNFCCC, *Kyoto Protocol To The United Nations Framework Convention On Climate Change*, United Nations, Kyoto (1998), p. 5

to meet the agreed full costs incurred by developing country Parties in advancing the implementation of existing commitments.⁵⁰ In addition, developed countries must 'also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of advancing the implementation of existing commitments.'⁵¹ This is arguably in line with the Convention, because the Protocol establishes policies to ensure that finances and technology are transferred to help less developed countries. Furthermore, the Kyoto Protocol establishes specific mechanisms which serve to enable technological and financial transfer. One such is the Clean Development Mechanism (CDM), defined in Article 12. Under the CDM, developed countries are encouraged to help implement project activities which result in certified emissions reductions in less developed countries.⁵² The CDM allows a country with an emission-reduction or emission-limitation commitment to implement an emission-reduction project in less developed countries.⁵³ Such projects can earn sellable certified emission reduction credits, each equivalent to one ton of carbon, which can be counted towards meeting Kyoto targets.⁵⁴ In other words, developed countries can meet their emissions targets in part by implementing projects in less developed countries which help these countries lower their own emissions and develop more cleanly. The fact that the Kyoto Protocol establishes a specific mechanism to facilitate technological and financial transfer seems promising, and indicates that policies have been put in place to enable the first part of Demand Two, which requires that less developed countries' concerns be taken into account. However, the CDM's projects are not aimed at the most vulnerable developed countries, but have rather been implemented in advanced less developed countries.⁵⁵ According to the CDM's 2014 Annual Report, out of 7,772 projects registered in 2014, 49.67% were registered in China, 20.23% in India, and 4.36% in Brazil.⁵⁶ These three countries, which are part of the BRICs group and have economic and political power far above other less developed countries as explained in Chapter Five, accounted for 74.26% of the CDM registered projects. This is problematic because other less developed countries,

⁵⁰ UNFCCC, *Kyoto Protocol To The United Nations Framework Convention On Climate Change*, United Nations, Kyoto (1998), p. 10

⁵¹ *Ibid.*

⁵² *Ibid.*, p. 11

⁵³ UNFCCC, 'The Clean Development Mechanism'

http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php [accessed 27.01.2015]

⁵⁴ *Ibid.*

⁵⁵ Yamin, F., and Depledge, J., *The International Climate Change Regime: A Guide to Rules, Institutions and procedures* (Cambridge: Cambridge University Press, 2004), p. 185

⁵⁶ Clean Development Mechanism, 'Annual Report 2014'

<http://cdm.unfccc.int/newsroom/factsheets/index.html> [accessed 10.04.2015]

let alone Least Developed Countries, are not included in technological and financial transfer under the CDM, and cannot be said to have their concerns taken into account by the CDM.

In addition to the CDM, Kyoto Protocol sets up three specific funds to assist less developed countries: the Special Climate Change Fund, the Least Developed Countries Fund, and the Adaptation Fund. The Adaptation Fund is the first financial instrument under the UNFCCC that is not based solely on voluntary contributions from donor countries.⁵⁷ It receives a 2% share of proceeds from project activities under the CDM and can also receive funds from other sources to fund concrete adaptation projects.⁵⁸ The fact that the Kyoto Protocol includes policies such as the CDM and specific climate funds seems to indicate that actors under the UNFCCC fall under the second run of the four point hierarchy in terms of the first part of Demand Two:

2. Actors in the institution are consistently working towards enabling the demand of justice – the demand of justice is not yet fulfilled, but there are policies in place which are consistently leading towards this goal.

The Kyoto Protocol places responsibility on developed states, in line with the first concern of less developed countries, and enables financial and technological transfer which is in line with the second and third concerns of less developed countries. This indicates that the actors in the UNFCCC are working towards creating a context where the second part of Demand Two can be met, because less developed countries' concerns are acted on. However, although the Kyoto Protocol has arguably put policies into place, it is questionable whether these are consistently leading toward a context where Demand Two of justice can be met. For example, the volume of the funds set up by the Kyoto Protocol is very small compared to the anticipated cost of adaptation in developing countries.⁵⁹ It is estimated that global adaptation costs will be \$125 billion in 2050.⁶⁰ These costs are so far not predicted to be met by the funds set up under the UNFCCC.⁶¹ At the time of writing, the three funds mentioned above hold a total of \$1.7 billion (the Adaptation Fund has pledges of \$483 million, the Least Developed Countries Fund has \$914 million, and the Special

⁵⁷ Klein, R. J. T. and Persson, A., 'Financing Adaptation to Climate Change: Issues and Priorities' in *European Climate Platform Report*, 8 (2008), p. 7

⁵⁸ *Ibid.*

⁵⁹ Shrivastava, M. K., and Goel, N., 'Shaping the Architecture of Future Climate Governance: Perspectives from the South' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 120

⁶⁰ Hof, A., De Bruin, K., Dellink, R., Den Elzen, M. and Van Vuuren, D., 'Costs, Benefits and Interlinkages Between Adaptation and Mitigation' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 252

⁶¹ *Ibid.*

Climate Change Fund has \$347).⁶² In addition, less developed countries have complained that the complexity of current arrangements constrains their access to funds for adaptation project activities.⁶³ For this reason, less developed countries have been consistently demanding the extension of the share of the proceeds from emissions trading and joint implementation for scaling up funding for adaptation.⁶⁴

As a result of these problems, Peter Lawrence argues that there has, so far, not been adequate financial or technological transfer.⁶⁵ Lawrence is more optimistic about the 'Green Climate Fund' established at Durban in 2011, which is supposed to finance agreed incremental costs for activities relating to adaptation, mitigation, technology development and transfer, capacity building and preparation of national reports by developing countries.⁶⁶ Lawrence believes the Green Climate Fund presents progress towards an effective funding mechanism.⁶⁷ However, the Fund's potential effectiveness is weakened by financial contributions remaining voluntary.⁶⁸ At the time of writing, the Green Climate Fund has received \$10.2 billion in pledges by 33 countries.⁶⁹ Although this is promising, because the Fund aimed to receive \$10 billion by the end of 2014 and is therefore on target, not all countries are committed to assisting the Green Climate Fund.⁷⁰ The current Prime Minister of Australia, Tony Abbott, notably refuses to contribute, claiming that the fund is 'socialism masquerading as environmentalism.'⁷¹ The Green Climate Fund is seen as critical to securing less developed countries' support for a successful deal on reducing emissions at COP21 in 2015. It is promising that the \$10 billion goal set for the end of 2014 was reached, but nevertheless this does not come close to the \$125 billion estimated to be required by 2050 to meet adaptation costs. For the reasons above, actors under the UNFCCC cannot be said to have adopted policies which are 'consistently leading' to the fulfilment of the first part of Demand Two of justice, because the three concerns of less developed countries

⁶² Climate Funds Update 'The Data' <http://www.climatefundsupdate.org/data> accessed [10.04.2015]

⁶³ Möhner, A., and Klein, R. J. T., 'The Global Environment Facility: Funding For Adaption, Or Adapting To Funds?' *Climate and Energy Programme, Working Paper* (Stockholm Environment Institute, 2007), p. 2

⁶⁴ Shrivastava, M. K., and Goel, N., 'Shaping the Architecture of Future Climate Governance: Perspectives from the South' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 121

⁶⁵ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 107

⁶⁶ *ibid.*

⁶⁷ *ibid.*

⁶⁸ *ibid.*

⁶⁹ Green Climate Fund 'Pledge Tracker' <http://news.gcfund.org> [accessed 09.04.2015]

⁷⁰ Paddy, A., 'Countries Pledge \$9.3bn for Green Climate Fund' <http://www.theguardian.com/environment/2014/nov/20/countries-pledge-93bn-for-green-climate-fund> [accessed 21.11.2014]

⁷¹ Goldenberg, S., 'G20: Obama to Pledge \$2.5bn To Help Poor Countries on Climate Change' in *The Guardian* <http://www.theguardian.com/environment/2014/nov/14/barack-obama-to-pledge-at-least-25bn-to-help-poor-countries-fight-climate-change> [accessed 21.11.2014]

have not been adequately met by current financial and technological transfer policies. This indicates that a context in which the first part of Demand Two can be met has so far not been created by actors in the UNFCCC. For this reason, actors under the UNFCCC can only be said to reside on the third rung of the four point hierarchy:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

The potential for the creation of policy lies in the ambitions of the Convention, the established framework for policy creation that exists under the UNFCCC, and the fact that the existing ‘plan of action’ incorporates policies that, although inadequate, are attempting to meet the ambitions set out in the Convention. Of course, this potential does not imply that Demand Two will definitely be met, or even that it is *likely* that it will be met, but it does mean that it is not impossible for the UNFCCC to create a context where the demand can be met. What is important is that there is room, or scope, for enablement. Nevertheless, the limited nature of financial and technological transfer presents a key hindrance which must be overcome in future in order to bring about a more just response to climate change.

The chapter now turns to the second half of Demand Two, namely that the distribution of responsibility should be allocated according to a PATP⁷² framework. This part of Demand Two is arguably supported by the Convention through its notion of ‘common but differentiated responsibility’ (CBDR). The preamble of the Convention sets out CBDR by acknowledging that ‘the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions.’⁷³ CBDR, under the preamble, implies that the developed countries must be the first to act on climate change. The preamble of the Convention states that there is a ‘need for developed countries to take immediate action in a flexible manner on the basis of clear priorities, as a first step towards

⁷² Polluter’s Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

⁷³ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 2

comprehensive response strategies at the global, national and, where agreed, regional levels that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse effect.⁷⁴ The wording here is particularly interesting. Using the phrase ‘due consideration of their relative contributions to the enhancement of the greenhouse effect’ seems to indicate a polluter pays (PPP) based approach, outlined in Chapter Five, because referring to contributions to the greenhouse effect seems to point to levels of pollution, rather than financial capability.

Interestingly, the Convention not only advocates a PPP approach, but also seems to hint at an ability to pay approach (ATP), outlined in Chapter Five, in Article 3.1 which states that ‘the Parties should protect the climate system.... in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.’⁷⁵ The key point to note here is that the word capability is left ambiguous, and represents an example of a ‘constructive ambiguity’ which is put in place to accommodate the diverging positions of parties.⁷⁶ The ambiguity of the term capability implies that the CBRD is open to interpretation in Article 3.1. This is different to the preamble, where contributions to the greenhouse effect are explicitly mentioned. As was explained above, interpretation is important in terms of enabling a demand, which is defined as creating a context where a demand can be met. If capability can include, for example, financial capability, this would place CBRD in line with the PATP model advocated in Chapter Five, which calls on states to be held to account for emissions in line with their per capita emissions and per capita wealth. Even though the Convention does not directly promote a PATP model, it seems that there may be some flexibility to accommodate this model, as the Convention mentions both historical emissions and capabilities as a reason for developed countries to be the first to act on climate change. To put it more simply, the CBRD is similar to the PATP in the following ways. First, both the PATP and the CBRD insist that duties fall on all, and yet both also insist that different demands can be made of different parties.⁷⁷ Second, the CBRD establishes that the duties to which a party is subject depend on (i) what they have done and (ii) what they are able to do,⁷⁸ which is what the PATP establishes because the model incorporates both per capita emissions and per capita wealth. In other

⁷⁴ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 4

⁷⁵ *Ibid.*, p. 9

⁷⁶ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Change Governance* (Cambridge: Cambridge University Press, 2014), p. 70

⁷⁷ Caney, S., ‘Cosmopolitan Justice, Responsibility, and Global Climate Change’ in *Leiden Journal of International Law* 18 (2005), p. 773

⁷⁸ *Ibid.*

words, the wording of the CBRD, at least in the Convention, seems flexible enough to accommodate the notion of a PATP distribution. This is important, because this flexibility allows for room for the creation of a context where Demand Two can be met. This does not guarantee that the demand will be met, or even that it is *likely* that it will be met. Nevertheless, it indicates that it is not impossible that Demand Two could be enabled through the actors in the UNFCCC.

Nevertheless, this flexibility is also problematic in a sense, because developed countries and less developed countries see the CBRD to imply different types of responsibility and capability. When the Convention was written, the developed countries took the view that the CBRD reflects greater ‘financial and technical capacity’ and denied the suggestion of responsibility for historic emissions.⁷⁹ The less developed countries on the other hand, took the CBRD to imply historical fault.⁸⁰ Although this is problematic because there is disagreement of the meaning of CBRD, the flexibility of CBRD as defined by the Convention arguably allows room for the enablement of the PATP, as was explained above. For this reason, actors under the UNFCCC according to the third rung of the hierarchy in terms of the second part of Demand Two:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

The potential to create policy lies in the ambition of the Convention, the flexibility of the CBRD, and the fact that a framework for the creation of policy has been established under the UNFCCC. However, in order to ascertain where the actors in the UNFCCC currently enable the PATP model in *practice*, the Kyoto Protocol must be examined. If the Kyoto Protocol creates a context where the PATP model can be acted upon, then this would further indicate the potential of the CBRD outlined in the Convention. Interestingly, the Kyoto Protocol reaffirms the Convention - the Preamble of the Kyoto Protocol stipulates that the Protocol is ‘*guided* by Article 3’ of the United Nations Framework Convention on Climate Change, which as explained above, outlines the CBRD.⁸¹ More importantly, the principle of ‘common but differentiated responsibility’ is explicitly affirmed in Article 10, which states that ‘all Parties, taking into account their common but differentiated

⁷⁹ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 111

⁸⁰ *Ibid.*

⁸¹ UNFCCC, *Kyoto Protocol To The United Nations Framework Convention On Climate Change*, United Nations, Kyoto (1998), p. 1

responsibilities' shall act on climate change.⁸² This seems to indicate that the actors under the UNFCCC have implemented a policy which enables the PATP model, which would place them on the second rung of the four point hierarchy:

2. Actors in the institution are consistently working towards enabling the demand of justice – the demand of justice is not yet fulfilled, but there are policies in place which are consistently leading towards this goal.

However, as with the first part of Demand Two, the actors under the UNFCCC arguably fall short of adopting a policy which consistently leads towards creating a context where the second part of Demand Two can be met. Although the Kyoto Protocol institutionalizes the CBRD into policy, the CBRD, as currently executed by the Kyoto Protocol, does not fall in line with the PATP, as will be explained below. The PATP model requires that the responsibility to contribute finances and lower emissions be based on both per capita emissions levels and per capita wealth. In terms of levels of emissions, the Kyoto Protocol does not hold some of the highest emitting states to account. The US, which is, at the time of writing, the second highest emitting country in the world,⁸³ never ratified the Kyoto Protocol, and is currently not held to account by the second commitment period of the Kyoto Protocol. Canada, Japan, Russia (each top ten emitters),⁸⁴ and New Zealand have refused to participate in the second commitment period of the Kyoto Protocol.⁸⁵ Furthermore, the Kyoto Protocol does not hold less developed countries with high emissions, such as China, India and Brazil, to account. China is now the world's largest emitter in absolute terms, and also ranks on par with the EU in per capita terms.⁸⁶ It would be unfair to criticize the Kyoto Protocol for not holding China, India or Brazil to account in 1997 when the Protocol was first written, because these countries did not have high per capita emissions or a high level of wealth at the time, and the Kyoto Protocol captures this under the concept of CBRD. However, the Kyoto Protocol is now in its second commitment period, which is in effect until 2020, and these countries are still not held to account for emissions reductions. In addition, Canada, the USA, Japan, Russia, and New Zealand are all wealthy high emitting countries that are not currently held to account under the Kyoto Protocol because of their refusal to participate in the second commitment period. Not

⁸² UNFCCC, *Kyoto Protocol To The United Nations Framework Convention On Climate Change*, United Nations, Kyoto (1998), p. 9

⁸³ <http://www.statista.com/statistics/271748/the-largest-emitters-of-co2-in-the-world/>

⁸⁴ *Ibid.*

⁸⁵ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 2

⁸⁶ Earth Negotiations Bulletin, 'Summary of the Warsaw Climate Change Conference' <http://www.iisd.ca/climate/cop19/enb/> [accessed 13.04.2015], p. 30

holding some of the highest emitters and wealthiest countries to account is not in line with the PATP model, which calls for countries to be held to account in line with their emissions and/or level of wealth. For these reasons, the actors under the UNFCCC cannot be said to have put policies in place which are consistently leading towards a context where the second part of Demand Two can be met. Instead, actors under the UNFCCC fall onto rung three of the four point hierarchy, because they have made normative commitments but not adopted policy that lives up to these:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

The potential for the creation of policy to consistently work toward enabling Demand Two lies in the ambitions of the Convention, the flexibility of the CBRD and the fact that a framework for the creation of policy has been established under the UNFCCC. In addition, the Kyoto Protocol has created policies, which although not completely in line with the PATP, nevertheless indicate that there is an existing policy framework that can be built upon. However, the limited number of states currently held to account is a key hindrance that must be overcome in order to bring about a more just response to climate change. Importantly, there have been negotiations concerning which countries are held to account for emissions reductions and/or financial contributions since 2007, in the run up to the COP21 in Paris at the end of 2015. These negotiations have been incredibly complex and fraught with difficulties, but it is worthwhile to note that there has been some progress towards expanding the list of countries that are currently held to account for emissions reductions/financial contributions under the Kyoto Protocol.

The process of renegotiating responsibilities initially began with the formation of the 'Ad Hoc Working Group on Long-term Cooperative Action' (referred to as the AWG-LC by the UNFCCC), which was created in Bali at COP13 in 2007, and aimed to work towards identifying a global goal for substantially reducing global emissions by 2050.⁸⁷ However, at COP17 in Durban in 2011, it was decided that this group would conclude its negotiations by the end of 2012, and a new, 'Ad Hoc Working Group on the Durban Platform for Enhanced Action' (referred to as the ADP by the UNFCCC), would be set up.⁸⁸ After five years of

⁸⁷ UNFCCC, 'Report of the Conference of the Parties on Its Seventeenth Session' http://unfccc.int/meetings/durban_nov_2011/meeting/6245/php/view/reports.php [accessed 10.04.2015], p. 4

⁸⁸ *Ibid.*, p. 2

negotiations, the AWG-LC agreed that parties under the UNFCCC will urgently work toward the deep reduction in global GHG emissions required to hold the global average temperature to below 2°C above pre-industrial levels and to attain a global peaking of global GHG emissions as soon as possible.⁸⁹ In order to achieve this aim, the ADP was set up and has been tasked with developing an agreement which will be implemented in Paris. The ADP is charged with negotiating mitigation, adaptation, finance, technology development and transfer, transparency of action and support, and capacity-building.⁹⁰ It is hoped that the ADP will provide a legal instrument or agreed outcome with legal force at COP 21 Paris which will come into effect and be implemented from 2020, effectively replacing the Kyoto Protocol.⁹¹

At the first meeting of the ADP at COP18 Doha in 2012, it became clear that the developed countries ‘increasingly envisage an evolving and dynamic framework that reflects current socioeconomic realities and definitively dismantles the ‘firewall’ between developed and developing country mitigation.’⁹² In other words, developed countries are keen to move on from the current dividing lines which exist under Annex I and Annex II. However, less developed countries, or non-Annex I and II countries according to the UNFCCC, have not been as enthusiastic about changing the definition of who is responsible. Since this first meeting in 2012, the ADP has met eight times, most recently in February 2015 in Geneva. Negotiations have not been straightforward, and the latest outcome document from the meeting in Geneva has not resulted in substantial decisions on the responsibilities of developed and less developed countries. In fact, the Geneva text clearly shows that all options on differentiation between countries remain on the table.⁹³ Nevertheless, it is worth very briefly outlining what has happened since the establishment of the ADP, because this is relevant to the question of whether the PATP model can be enabled by actors under the UNFCCC in the future.

As was mentioned above, the ADP has met eight times since its creation in 2011, at the time of writing. At the first meeting in Doha at COP18 in 2012, the ADP stated its aim to

⁸⁹ Earth Negotiations Bulletin, ‘Summary of the Doha Climate Change Conference’ <http://www.iisd.ca/climate/cop18/enb/> [accessed 10.04.2015], p. 9

⁹⁰ Earth Negotiations Bulletin, ‘Summary of the Geneva Climate Change Conference’ <http://www.iisd.ca/climate/adp/adp2-8/> [accessed 13.04.2015], p. 1

⁹¹ Earth Negotiations Bulletin, ‘Summary of the Durban Climate Change Conference’ <http://www.iisd.ca/climate/cop17/> [accessed 10.04.2015], p. 28

⁹² Earth Negotiations Bulletin, ‘Summary of the Doha Climate Change Conference’ <http://www.iisd.ca/climate/cop18/enb/> [accessed 10.04.2015], p. 28

⁹³ Earth Negotiations Bulletin, ‘Summary of the Geneva Climate Change Conference’ <http://www.iisd.ca/climate/adp/adp2-8/> [accessed 13.04.2015], p. 14

advance efforts to bridge the current mitigation gap and deliver a new agreement by 2015.⁹⁴ Doha was about moving forward on a trajectory towards adopting a universal climate agreement by 2015, but not much was agreed at this meeting.⁹⁵ The ADP met twice after COP18 in Doha in order to prepare for COP19 in 2013 in Warsaw. During their fourth meeting at Warsaw, Parties discussed the process for defining mitigation commitments.⁹⁶ There was disagreement over which countries should be responsible for how much, with some Parties keen on basing mitigation targets on historical responsibilities, and others arguing that historical responsibilities will not ensure achievement of the 2°C goal.⁹⁷ Discussions were polarized between various developing countries, which stressed continued application of the principles, provisions and annex-based differentiation arrangement under the Convention; and developed countries, which emphasized the need to continue but also update the application of the CBDR principle to reflect evolving circumstances.⁹⁸ In the end, although the Parties agreed to encourage all member states to initiate or intensify domestic preparations for their intended nationally-determined contributions (due by the first quarter of 2015), key questions on how to differentiate commitments of developed and less developed countries were left unresolved.⁹⁹

The ADP met three times after the COP19 in Warsaw in order to prepare for the most recent COP, COP20 at Lima in 2014. Negotiations in Lima focused on outcomes under the ADP necessary to advance towards an agreement in Paris at COP 21 in 2015, including elaboration of the information, and process, required for submission of Intended Nationally Determined Contributions (INDCs) as early as possible in 2015 and progress on elements of a draft negotiating text.¹⁰⁰ However, the negotiations did not make much headway, and at the end of lengthy negotiation, COP 20 adopted the 'Lima Call for Climate Action,' which sets in motion the negotiations towards a 2015 agreement.¹⁰¹ The 'Lima Call for Action' is a 33 page draft agreement, which was left open for further negotiation by the ADP. This draft agreement was difficult to put together, and saw Parties negotiating one paragraph of the agreement at time, with input from the President of the COP, Manuel Pulgar-Vidal,

⁹⁴ Earth Negotiations Bulletin, 'Summary of the Doha Climate Change Conference' <http://www.iisd.ca/climate/cop18/enb/> [accessed 10.04.2015], p. 9

⁹⁵ *Ibid.*, p. 26

⁹⁶ Earth Negotiations Bulletin, 'Summary of the Warsaw Climate Change Conference' <http://www.iisd.ca/climate/cop19/enb/> [accessed 13.04.2015], p. 10

⁹⁷ *Ibid.*, p. 11

⁹⁸ *Ibid.*, p. 13

⁹⁹ *Ibid.*, p. 29

¹⁰⁰ Earth Negotiations Bulletin 'Summary of the Lima Climate Change Conference' <http://www.iisd.ca/climate/cop20/enb/> [accessed 13.04.2015], p. 1

¹⁰¹ *Ibid.*

Minister of the Environment of Peru. Negotiations ended at 1:30 in the morning on the last day, with the president of the COP urging the ADP to agree.¹⁰² The negotiators could not come to an agreement on how to allocate responsibilities for mitigation. Japan, New Zealand, the US, Australia, Switzerland and Canada opposed creating binary divisions on commitments, based on annexes or the distinction between developed and developing countries.¹⁰³ India with China, Brazil, Fiji, the Like Minded Group of Developing Countries (LMDCs), the Dominican Republic, Thailand and Venezuela, called for a clear reference that the draft was not just 'guided by' but is 'in accordance with' the principle of CBRD and provisions under the Convention, which indicates their commitment to existing categories of responsibility.¹⁰⁴ Supporting Brazil, China opposed the introduction of new concepts, saying diverting from the principles and provisions of the Convention makes progress difficult.¹⁰⁵ The final draft agreement, 'Lima Call for Action' did not fully address these differences, and left much more work to be done to find an agreement before Paris. Nevertheless, analysts at the International Institute for Sustainable Development (IISD) claim that the Lima negotiations shifted the wall of differentiation between countries, and the final agreement appears to open the door to new interpretation of differentiation in future.¹⁰⁶

The latest ADP negotiations, at the time of writing, took place in Geneva in February 2015. Here the 39 page 'Lima Action Plan' was once again negotiated, and lengthened to 88 pages. The Parties worked through the elements of the text section-by-section proposing additions in places where they felt their views were not adequately reflected.¹⁰⁷ The ADP closing plenary agreed that this longer text will be the basis on which the ADP will start substantive negotiations towards the Paris agreement at their next meeting in June 2015 in Bonn.¹⁰⁸ However, although a text was agreed to, the text itself does not contain any concrete decisions, and rather outlines the positions of parties. This is largely because disagreements over how to classify countries and how much each country should

¹⁰² Earth Negotiations Bulletin 'Summary of the Lima Climate Change Conference' <http://www.iisd.ca/climate/cop20/enb/> [accessed 13.04.2015], p. 27

¹⁰³ *Ibid.*, p. 37

¹⁰⁴ *Ibid.*, p. 32

¹⁰⁵ *Ibid.*, p. 37

¹⁰⁶ Earth Negotiations Bulletin 'Summary of the Lima Climate Change Conference' <http://www.iisd.ca/climate/cop20/enb/> [accessed 13.04.2015], p. 43

¹⁰⁷ Earth Negotiations Bulletin, 'Summary of the Geneva Climate Change Conference' <http://www.iisd.ca/climate/adp/adp2-8/> [accessed 13.04.2015], p. 1

¹⁰⁸ *Ibid.*

contribute were not resolved.¹⁰⁹ There were many proposals on how to classify countries. For example, Iran, for the LMDCs, proposed noting that the largest share of current global GHG emissions originates from developed countries and that emissions in developing countries will grow to meet their social and development needs.¹¹⁰ The EU proposed adding reference to different national circumstances wherever common but differentiated responsibilities and respective capabilities appears.¹¹¹ The US proposed a placeholder for a new ‘Annex X,’ to be agreed in Paris and updated regularly based on criteria relating to evolving emissions and economic trends, and for a new ‘Annex Y,’ agreed based on capabilities and evolving economic circumstances.¹¹² Instead of agreeing on a proposal, each proposal was simply listed in the agreed text.¹¹³ Analysts at the IISD claim that this was a necessary precondition to generate a sense of ownership among parties and boost confidence that all parties’ views will be taken into consideration in the negotiations on the Paris agreement.¹¹⁴ However, this leaves the differentiation between Parties open, as it has been since the ADP was formed. The UNFCCC parties have now been debating differentiation since 2007, with positions ranging from a ‘static interpretation’ of CBRD to an evolutionary one, removing or shifting the so-called ‘firewall’ between developed and developing countries.¹¹⁵

This leaves the question of whether the 2015 Paris Agreement will fall in line with the PATP, which calls for countries to be held to account in line with their level of emissions and/or level of wealth, unanswered. Which iteration of differentiation is adopted remains to be seen. What is clear from the recent negotiations is that all proposed options for differentiation currently remain on the table.¹¹⁶ This implies that there is room, or scope, for a policy that is in line with the PATP. Although this is not guaranteed, or even *likely*, the point is that there remains, at the time of writing, a space for the second part of Demand Two to be enabled by the actors under the UNFCCC. This will be further discussed in the second part of the chapter, which concerns the future of multilateral climate change governance.

¹⁰⁹ Earth Negotiations Bulletin, ‘Summary of the Geneva Climate Change Conference’ <http://www.iisd.ca/climate/adp/adp2-8/> [accessed 13.04.2015], p. 4

¹¹⁰ *Ibid.*, p. 9

¹¹¹ *Ibid.*

¹¹² *Ibid.*

¹¹³ *Ibid.*

¹¹⁴ *Ibid.*, p. 13

¹¹⁵ *Ibid.*, p. 14

¹¹⁶ *Ibid.*

Demand Three – Capable Actors

Demand Three states that capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause, in line with their respective capabilities. Mirroring the assessment already conducted, the assessment below will first discuss to what extent actors under the UNFCCC enable Demand Three in *theory* by examining the Convention before exploring to what extent these actors enable the demand in *practice* by examining the Kyoto Protocol. It will be illustrated that the ambitions of the Convention do not enable Demand Three, and that the Kyoto Protocol accordingly does not represent a set of policies which enable Demand Three of justice as defined in this thesis.

The preamble of the Convention ‘recalls that states have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.’¹¹⁷ This passage reveals that the UNFCCC is based on the norm of state sovereignty, as outlined in the Charter of the United Nations. Furthermore, the wording in this passage places responsibility on states, in line with their sovereign right to exploit the environment. Holding states to account is unproblematic for the fulfilment of Demand Three, in the sense that capable actors, including individuals, firms, sub-state entities, and international institutions can arguably be held to account within states. However, the preamble puts the burden of responsibility solely on a limited number of states. More specifically, the preamble places responsibility on developed nations, because ‘the largest share of historical and current global emissions of greenhouse gases has originated in developed countries.’¹¹⁸ The preamble therefore urges developed countries to take ‘immediate action.’¹¹⁹ This seems to imply that the Convention aims to hold only developed nations to account for climate change action. If this is the case, then any capable actor outside of these states, including individuals, firms, sub-state entities, and international institutions, will not be held to account under the Convention. Why this is problematic will be further discussed below, after assessing the main, legally binding, body of the Convention.

¹¹⁷ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), p. 2

¹¹⁸ *Ibid.*

¹¹⁹ *Ibid.*, p. 4

The main body of the Convention is in line with the tone set in the Preamble. The Convention places primary responsibility on developed 'Parties,' or in other words, states. Although Article 4.1 stipulates that all Parties, 'taking into account their common but differentiated responsibilities' keep track of their emissions, promote scientific and technological research, cooperate in facilitating adaptation, and take climate change considerations into account, among other tasks,¹²⁰ the Convention only holds developed countries and any other 'Annex I'¹²¹ countries to account for lowering emissions. Article 4.2(a) holds Annex I countries responsible for taking 'corresponding measures on the mitigation of climate change, by limiting anthropogenic emissions of greenhouse gases and protecting and enhancing greenhouse gas sinks and reservoirs.' In addition, the Convention only holds a certain number of states, namely 'Annex II'¹²² countries, to account for financial contributions. Article 4.3 states that 'the developed country Parties and other developed Parties included in Annex II shall provide new and additional financial resources.'

Demand Three states that *all* capable actors, including individuals, firms, sub-state entities, international institutions, as well as states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause, in line with their respective capabilities. Contrary to this demand, the Convention limits actors responsible for lowering emissions to those within Annex I countries, which amounts to less than forty countries out of the 196 countries in the world. In terms of financial contribution, the Convention only holds Annex II countries to account, which amounts to less than thirty countries of the 196 countries in the world. This is problematic because the actors outside of these countries, including individuals, firms, sub-state entities, international institutions and states are not held to account under the Convention. This is incompatible with Demand Three, which states that *all* capable actors must be held to account for lowering emissions and/or contributing financially. As was discussed in Chapter Five, there are rich individuals with high emissions living in countries such as India and China, states that are not held to account under the Convention. Furthermore, as discussed above, there are states which have high emissions, such as China

¹²⁰ UNFCCC, *United Nations Framework Convention on Climate Change*, UNFCCC Secretariat, Bonn (1992), pp. 10 – 11

¹²¹ Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, European Economic Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America.

¹²² Australia, Austria, Belgium, Canada, Denmark, European Economic Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom of Great Britain and Northern Ireland, United States of America.

or Brazil, who are not held to account despite their capability to lower emissions. Finally, there exist international institutions and corporations that exist outside of Annex I and II countries, which are capable of financial contributions. For example, Petro China, or Telemar in Brazil, which earn billions in revenue every year. For this reason, the Convention cannot be said to represent ambitions in line with Demand Three, which implies that the actors under the UNFCCC do not enable Demand Three of justice, because these actors do not create a context where Demand Three can be met. In other words, according to the above assessment of the Convention, the actors in the UNFCCC fall under the fourth rung of the four point hierarchy:

4. Actors in the institution do not enable the demand of justice – there has been no promise or attempt to enable the demand of justice and there are no policies in place.

In order to investigate whether the actors under the UNFCCC make a radical departure from the Convention in *practice*, and put policies into place which enable Demand Three, the Kyoto Protocol must be assessed. Unfortunately, as will be illustrated below, the Kyoto Protocol reflects the Convention almost exactly. Although Article 10 stipulates that ‘all Parties, taking into account their common but differentiated responsibilities... shall formulate programs to improve the quality of local emission factors and report on these,’¹²³ the Kyoto Protocol, in line with the Convention, exclusively holds developed countries to account for lowering emissions and financial contributions. Article 2.2 of the Kyoto Protocol states that ‘the Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases.’¹²⁴ In terms of financial contributions, Article 11 states that Parties included in Annex II to the Convention shall:¹²⁵ (a) Provide new and additional financial resources¹²⁶ (b) including for the transfer of technology.¹²⁷ These two articles reflect the Convention above, which only holds Annex I¹²⁸ countries to account for emissions reductions, and only holds Annex II¹²⁹ countries to account for financial resources.

¹²³ UNFCCC, *Kyoto Protocol To The United Nations Framework Convention On Climate Change*, United Nations, Kyoto (1998), p. 9

¹²⁴ *Ibid.*, p. 2

¹²⁵ *Ibid.*, p. 10

¹²⁶ *Ibid.*

¹²⁷ *Ibid.*, p. 11

¹²⁸ Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, European Economic Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Spain,

This is arguably not in line with Demand Three, which states that *all* capable agents must be held to account. Furthermore, as was mentioned above, rich and high emitting states such as the US never ratified the Kyoto Protocol, and Canada, Japan, Russia, and New Zealand have refused to participate in the second commitment round.¹³⁰ This lowers the number of states held to account for financial contributions and emissions reductions under the Kyoto Protocol even further than in the first commitment period. In fact, the states held to account under the second period of the Kyoto Protocol only account for 15% of global GHG emissions.¹³¹ Although the states that are held to account under the Kyoto Protocol can hold individuals, firms, sub-state entities, and international institutions which exist within their borders to account, this still leaves well over one hundred states which are not held to account. Many of these states arguably have the capability to lower emissions and or contribute financially (for example the US, Canada, Japan) and many of the states which do not have the capability have capable (rich and high emitting) individuals, firms (Shell, Exxon for example), and sub-state entities (cities like Mumbai or Beijing) present within their borders. For this reason, it is possible to make the case that the Kyoto Protocol does not *implement* policies to hold all capable actors to account. Actors under the UNFCCC cannot be said to enable Demand Three of justice, because they do not create a context where Demand Three can be met, and therefore reside on the bottom rung of the four point hierarchy:

4. Actors in the institution do not enable the demand of justice – there has been no promise or attempt to enable the demand of justice and there are no policies in place.

It can therefore be said that the number of states currently held to account under the UNFCCC is a key hindrance which must be overcome in order to bring about a more just response to climate change. However, as was outlined above, the ADP is currently negotiating the number of states that are held to account, so there is some room for change in the future. This does not mean that the UNFCCC will definitely hold all capable actors to account for emissions reductions/financial contributions in future, but rather that

Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America.

¹²⁹ Australia, Austria, Belgium, Canada, Denmark, European Economic Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom of Great Britain and Northern Ireland, United States of America.

¹³⁰ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 2

¹³¹ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 22

this is not impossible. Now that all three demands have been assessed, the chapter turns to summarizing what has been found so far.

Summary of Findings

The above exploratory assessment served to illustrate how the climate justice position in this thesis can be applied to assess to what extent actors under the UNFCCC meet their responsibilities to enable a condition of justice in the case of climate change. The UNFCCC was tentatively assessed both in *theory* and *practice*; the chapter assessed both the Convention and the Kyoto Protocol. The findings of this assessment are summarized in the table below.

Demand	Extent to Which the Demand is Enabled by Actors under the UNCCC
One: The right to health ¹³² of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected.	3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.
Two: The concerns of less developed countries must be properly considered in climate change action. The distribution of benefits and burdens in global climate change action should be based in the PATP ¹³³ model.	3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.
Three: Capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause, in line with their respective capabilities.	4. Actors in the institution do not enable the demand of justice – there has been no promise or attempt to enable the demand of justice and there are no policies in place.

¹³² Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

¹³³ Polluter's Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

What is interesting to note is that the first two Demands defended in the thesis are in line with the ambitions of the Convention, because as was illustrated above, the Convention arguably has ambitions that can be interpreted as in line with the demands of climate justice. This implies that the actors under the UNFCCC have to an extent, created a context within which the demands of climate justice can be met. Although the ambitions of the Convention do not guarantee that demands of justice will be met, or even that this is *likely*, especially because the Convention is constructed to be ambiguous, the fact that the Convention can be interpreted as in line with the climate justice position set out in this thesis implies that there is room, or scope, for these demands to be met. This is because the Convention sets out a context within which these demands could be met in future, and not one in which it could be said it is impossible to pursue the demands of climate justice defended here.

This is a significant positive trajectory. As Paul Harris eloquently puts it, ‘the climate change regime may be at or near the zenith of justice in international environmental affairs, demonstrating that most states recognize the need for justice in this issue area.’¹³⁴ This seems promising in terms of future reforms, because the demands of justice explicated in this thesis are at least partially reflected in the treaty, which summarizes global consensus on action in the face of climate change. This indicates that any normative suggestions for a more just response to climate change which are based on Demands One and Two could potentially be used by the actors under the UNFCCC, because these Demands are reflected in the normative commitments made in the Convention. Overall, the assessment above indicates that the rhetoric of justice is inscribed in the framework of the UNFCCC, at least in terms of Demand One and Two. Unfortunately, as was illustrated above, practice does not yet live up to normative rhetoric. That said, it has been demonstrated that actors under the UNFCCC have implemented some, albeit inadequate, policies which attempt to fulfil the ambitions set out in the Convention, and that the negotiations in the run up to Paris indicate that there is scope for moving forward. Again, this represents a key positive trajectory or at least provides metatheoretical space for advancement.

However, the fact that actors under the UNFCCC are failing to fully enable any of the three demands, and fail to enable Demand Three at all, represents a key hindrance which must be overcome in order to meet a condition of justice in the case of climate change. The actors under the UNFCCC must do more to live up to their responsibility for enabling a

¹³⁴ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 75

condition of justice. This is an opinion shared by other climate justice scholars. Peter Lawrence argues that the relatively robust, albeit vague, justice principles reflected in the UNFCCC contrast with the lack of effective and binding emission targets and other essential elements such as compliance mechanisms and funding necessary for an effective global regime.¹³⁵ Similarly, Stephen Gardiner argues that the Kyoto Protocol is no more than a comfortable illusion that serious progress is being made.¹³⁶ Paul Harris agrees, noting that while the UNFCCC regime may be considered an important step for international justice, in practice multilateral governance has not achieved the aims of preventing dangerous impacts on the earth's climate system.¹³⁷ These assessments are rather pessimistic, and do not imply much hope for the future.

Multilateral Climate Change Governance: Current Practice and the Future of the UNFCCC

The chapter will now turn to discussing whether actors under the UNFCCC have the capacity to enable a condition in the future by briefly commenting on the current hindrances and positive trajectories associated with the current practice of the UNFCCC, and discussing the present state of negotiations in the lead up to COP21 in Paris. If it can be illustrated that the UNFCCC can be said to have the capacity to enable a condition of justice in the future, this will provide a response to the pessimistic assessment made by Harris, Gardiner, and Lawrence above. It should be noted that capacity and probability are two different matters. As was discussed in Chapter Six, capacity implies responsibility, even if the probability of an action is low. In this sense, it is not morally relevant whether it is likely that actors in the UNFCCC will enable a condition of justice in the future, because these actors are morally responsible for doing so. However, it is still important to explore whether the capacity to enable climate justice will be affected by future climate change policy within the UNFCCC. If the actors under the UNFCCC are moving towards policies which create a context where demands of justice can be met, then this indicates that the actors of the UNFCCC remain capable of, and therefore morally responsible for, enabling a condition of justice in the case of climate change. If new policy directions are not in line with the demands of justice defended here, then it is questionable whether the actors in the UNFCCC are capable of creating a context where these demands can be met.

¹³⁵ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 126

¹³⁶ Gardiner, S., 'The Global Warming Tragedy and the Dangerous Illusion of the Kyoto Protocol' in *Ethics and International Affairs* 18 (2004), p. 36

¹³⁷ Harris, P., *World Ethics and Climate Change: From International to Global Justice* (Edinburgh: Edinburgh University Press, 2010), p. 75

Current Practice of the UNFCCC – Hindrances and Positive Trajectories

The chapter now turns to commenting on the current practice of the UNFCCC, beginning with problems facing the actors under this framework. It would be difficult to cover all of the problems associated with the practice of the UNFCCC in full in the space of this chapter, as whole books have been written on the subject. Therefore only a few issues relevant to the demands of justice defended in this thesis, including lack of effectiveness, lack of inclusion, and focus on mitigation over adaptation, will be highlighted below in order to illustrate some of the main problems the actors under the UNFCCC face. Lack of effectiveness is perhaps one of the most pressing problems these actors face. As was explained above, the UNFCCC has not been able to halt emissions reductions, which jeopardizes the right to health of future generations. The UNFCCC is known for being ineffective,¹³⁸ and the UNFCCC negotiations have been widely criticized for their lack of progress.¹³⁹ This is in part because the UNFCCC ‘requires the impossible: consensus decision-making by 195 parties on every line of a complex and lengthy treaty.’¹⁴⁰ Any party can object to any clause in any proposed agreement and this objection must then be dealt with, which appears to be a recipe for impasse.¹⁴¹ This may be why it is so difficult for the Parties to the Convention to agree on a new legally binding treaty which will take effect after the Kyoto Protocol, and why the lack of progress on emissions reductions outlined in this chapter is seemingly enduring. As was illustrated above, negotiating which countries are responsible for what has proven to be a fruitless venture over the past seven years. COP21 at Paris is drawing ever closer, and negotiations under the ADP have not yet resulted in a decision on allocation of responsibilities which will take effect in 2020. It is also not yet clear whether the Paris agreement will be a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all parties.¹⁴² The fact that a decision on what the Paris COP will result in has not been made after years of negotiations under the ADP is indicative of the slow nature of change within the UNFCCC. This has so far resulted in a lack of effectiveness of the framework, which can be seen in the large gap between the current and promised emission reductions, and the emissions reductions needed to ensure that the right to health of future generations is protected.

¹³⁸ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 6

¹³⁹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 63

¹⁴⁰ Eckersley, R., ‘Moving Forward in the Climate Negotiations: Multilateralism or Minilateralism?’ in *Global Environmental Politics*, 12(2) (2012), p. 24

¹⁴¹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 63

¹⁴² Earth Negotiations Bulletin, ‘Summary of the Geneva Climate Change Conference’ <http://www.iisd.ca/climate/adp/adp2-8/> [accessed 13.04.2015], p. 13

Another issue multilateral governance faces is the lack of inclusion and representation at the COPs. Inclusion and representation issues mostly affect poorer less developed countries, particularly Least Developed Countries, as they typically have much smaller delegations and therefore cannot keep abreast of the myriad issues, meetings and side-events at the COPs.¹⁴³ During a typical two-week COP, dozens of meetings run in parallel.¹⁴⁴ Although simultaneous interpretation is provided in the six languages of the United Nations during formal plenary meetings, during informal consultations and working group meetings negotiators are left to rely on their own English skills for communication.¹⁴⁵ It is at these informal meetings where most actual negotiation is known to take place.¹⁴⁶ Furthermore, the most significant discussions are conducted in English (despite the fact that not all senior negotiators are proficient in this language), and more than two formal and informal meetings are frequently conducted simultaneously, which means that smaller, poorer, less developed countries cannot attend all meetings, as they do not have large enough parties to split into multiple meetings.¹⁴⁷ Moreover, developed countries generally send large inter-ministerial delegations that can proficiently engage in the political, technical, and legal aspects of climate debates.¹⁴⁸

All of the above seems to indicate that the equality of states to participate in the UNFCCC negotiations is highly compromised.¹⁴⁹ Vanderheiden goes so far as to claim that multilateral negotiations are so exclusive that many less developed countries are usually offered a 'take it or leave it' deal after the United States and European Union have made decisions.¹⁵⁰ This indicates that many, particularly poorer, less developed countries are not properly included in climate change action because they cannot express their concerns and are not fairly included in decision making. Currently these poorer countries have little capacity to shape or influence climate governance.¹⁵¹ This is problematic not only because this is contrary to Demand Two which calls for the proper consideration of less developed countries' concerns, but because allowing such power disparities to permeate the climate

¹⁴³ Eckersley, R., 'Moving Forward in the Climate Negotiations: Multilateralism or Minilateralism?' in *Global Environmental Politics*, 12(2) (2012), p. 35

¹⁴⁴ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 73

¹⁴⁵ *Ibid.*, p. 74

¹⁴⁶ *Ibid.*

¹⁴⁷ *Ibid.*, p. 76

¹⁴⁸ *Ibid.*

¹⁴⁹ *Ibid.*, p. 77

¹⁵⁰ Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 253

¹⁵¹ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 31

policy-making process virtually guarantees policy outputs that benefit the powerful and cost the powerless.¹⁵² If Demand Two is to be enabled beyond the third rung of the four point hierarchy, these procedural issues must be addressed. Less developed countries' concerns cannot be properly considered if these countries are not heard and included. Including less developed countries may reduce effectiveness of decision making processes, but effectiveness is not the only important factor in action on climate change according to the climate justice position defended here: the climate response must also include less developed countries' concerns, as was explained in Chapter Five.

A third hindrance faced by the UNFCCC lies in the fact that mitigation seems to be the main focus of multilateral governance, with adaptation often occurring as an afterthought.¹⁵³ Adaptation has historically been seen as a marginal policy option, mitigation's 'poor cousin' in the climate policy arena.¹⁵⁴ The Kyoto mechanisms, for example, are primarily concerned with mitigation. Although the Kyoto Protocol has mechanisms for aiding adaptation, these are not adequate to meet the predicted costs of adaptation, as was explained above. It has been suggested that adaptation is not as supported as mitigation because the performance of adaptation options cannot be measured and expressed in a single metric, e.g. carbon or US dollars.¹⁵⁵ This renders it difficult for decision makers to compare between alternative adaptation options and to consider potential trade-offs.¹⁵⁶ However, it is clear that even in the face of these difficulties, changes need to be made to ensure that adaptation costs are met. This includes ensuring that financial and technological transfer occurs. The current climate governance architecture is not conducive for fair and effective action on adaptation for many less developed countries.¹⁵⁷ This problem needs to be addressed so that multilateral governance can adequately include the concerns of less developed countries in climate action.

¹⁵² Vanderheiden, S., *Atmospheric Justice – A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008), p. 253

¹⁵³ Mitigation refers to lowering emissions, for example by investing in new technology or using less energy. Adaptation refers to actions which help prepare for climate change, for example building seawalls to protect those who live near the coast, subsidizing people to move away from threatened areas, spending money on inoculating people from infectious diseases, supporting irrigation systems in drought prone areas, and sending overseas aid to victims of malnutrition.

¹⁵⁴ Ayers, J., Alam, M. and Huq, S., 'Global Adaptation Governance Beyond 2012: Developing Country Perspectives' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 270

¹⁵⁵ Klein, R. J. T. and Persson, A., 'Financing Adaptation to Climate Change: Issues and Priorities' in *European Climate Platform Report*, 8 (2008), p. 1

¹⁵⁶ *Ibid.*

¹⁵⁷ Ayers, J., Alam, M. and Huq, S., 'Global Adaptation Governance Beyond 2012: Developing Country Perspectives' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 271

In addition to these problems the chapter also discussed the following four hindrances in the assessment above: a) lack of compliance with the Kyoto Protocol, b) weak targets set by the Kyoto Protocol, c) limited financial and technological transfer, and d) only a small number of states are currently held to account under the UNFCCC. These hindrances, and the three hindrances discussed above, namely e) ineffectiveness, f) lack of accessibility to less developed countries, especially the poorest and g) a focus on mitigation in favor of adaptation, must be addressed in the future in order to bring about a more just response to climate change.

Alongside these problems, there have also been some key positive trajectories in the practice of the UNFCCC. One is that the Convention appears to reveal that the actors under the UNFCCC treat climate change as a matter of global justice. More specifically, the Convention sets out ambitions which set a, albeit ambiguous, context which speaks to meetings Demands One and Two, as explained above. In addition, although policies which could set a context in which these demands could be met have so far been inadequate, there are nevertheless policies in place. This seems to imply that actors under the UNFCCC may be able to better enable a condition of justice in the future, by creating a context where these demands can be met. This is especially true if the UNFCCC sets renewed objectives or policies which are in line with the three conditions of climate justice defended in this thesis.

There are two other positive trajectories worthy of mention. One is the very existence of a multilateral framework charged with the execution of global climate change policy. Although this framework has significant problems, some of which were discussed in this chapter, it is nevertheless promising that such a framework exists at all. The fact that the framework continues to exist and that actors within this framework are attempting to create a second binding treaty is a positive trajectory, because this indicates that there is an emerging context within which the demands of justice could be realized. The existence of the framework is especially important considering that it seems to be built on ambitions which are in line with Demands One and Two of justice.

A second positive trajectory lies in the action taken since the UNFCCC has been established. There has been a creation of a legally binding treaty which is in force until 2020, namely the Kyoto Protocol. Despite its problems, the Kyoto Protocol has been a helpful first attempt at multilateral climate change governance. According to the UNFCCC, the Kyoto Protocol is seen as an important first step towards a truly global emission reduction regime that will

stabilize GHG emissions, and can provide the architecture for the future international agreement on climate change.¹⁵⁸ According to the IPCC, the Kyoto Protocol offers lessons towards achieving the ultimate objective of the UNFCCC, particularly with respect to participation, implementation, flexibility mechanisms, and environmental effectiveness.¹⁵⁹ One of the most positive trajectories to stem out of the Kyoto protocol is European Union (EU) action on climate change. The EU's members have taken the lead in global negotiations, and the continent has registered significant progress.¹⁶⁰ In addition, 2014 saw unprecedented pledges to the Green Climate Fund.¹⁶¹ Furthermore, preliminary data from the International Energy Agency indicate that global emissions of carbon dioxide from the energy sector stalled in 2014 (compared to 2013), marking the first time in forty years in which there was a halt or reduction in emissions of the GHG that was not associated with an economic downturn.¹⁶² Finally, as will be explored in the subsequent chapter, some of the largest countries and territories, from China to California, and largest corporations, from PepsiCo to the Ford Motor Company, have implemented emissions-cutting actions.¹⁶³ Although not directly linked to the UNFCCC, networked climate change governance processes are influenced and reinforced by action taken by the UNFCCC.¹⁶⁴ It seems that although multilateral governance still faces significant problems, there have been indications of small and occasionally even significant steps in the right direction.¹⁶⁵

Looking to the Future

The key positive trajectories and current hindrances explored in this chapter leave open the question of what will happen next. A new climate treaty is scheduled to be written in Paris in late 2015. If this treaty is analogous to the 1997 Kyoto Protocol, climate deterioration and intergenerational injustice will practically be guaranteed.¹⁶⁶ However, there is hope that the new global treaty will set a departure from the Kyoto Protocol as a result of the

¹⁵⁸ UNFCCC, 'The Kyoto Protocol' http://unfccc.int/kyoto_protocol/items/2830.php [accessed 27.01.2015]

¹⁵⁹ Intergovernmental Panel on Climate Change, *IPCC Fifth Assessment Report: Summary for Policy Makers, 2014* https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_SPMcorr2.pdf [accessed 04.11.2014], p. 19

¹⁶⁰ Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 165

¹⁶¹ Hoyle, M., 'US and China Reach Historic Climate Change Deal, Vow to Cut Emissions' <http://edition.cnn.com/2014/11/12/world/us-china-climate-change-agreement/index.html> [accessed 21.11.2014]

¹⁶² International Energy Agency, 'Global Energy-Related Emissions of Carbon Dioxide Stalled in 2014' <http://www.iea.org/newsroomandevents/news/2015/march/global-energy-related-emissions-of-carbon-dioxide-stalled-in-2014.html> [accessed 10.04.2015]

¹⁶³ Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 166

¹⁶⁴ *Ibid.*

¹⁶⁵ *Ibid.*, p. 167

¹⁶⁶ Hansen, J., et al. 'Assessing Dangerous Climate Change: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature' in *Plos One*, 8 (2013), p. 21

recent years of negotiations. Below is a brief overview of key decisions at recent COPs which will illustrate the potential of the future treaty.

COP17 in 2011 in Durban set up the 'Green Climate Fund' which aims to finance agreed incremental costs for activities relating to adaptation, mitigation, technology development and transfer, capacity building and preparation of national reports by developing countries.¹⁶⁷ This Fund is seen as crucial in terms of getting less developed countries on board with the new agreement, and has seen its 2014 targets met, as was discussed above. COP17 was also the first time China, Brazil, and India agreed that their own emissions were now a matter of legitimate concern.¹⁶⁸ COP18 in 2012 in Doha launched the second commitment period of the Kyoto Protocol, indicating that the actors in the UNFCCC remain committed to creating and maintaining treaties to manage climate change. Furthermore, as was discussed above, negotiations for allocating responsibilities to less developed countries have been underway under the ADP since Doha. At COP19 in 2013 in Warsaw, the required monitoring, reporting and verification arrangements for domestic action were finalized for implementation, thereby providing a foundation for the 2015 agreement.¹⁶⁹ In addition, all 48 Least Developed Countries finalized plans to better assess the immediate impacts of climate change and enable countries to determine the support and actions they require to become more resilient at COP19.¹⁷⁰ The most recent COP at the time of writing, COP20 in 2014 in Lima, continued to pave the way for the 2015 legally binding agreement. Adaptation was arguably prioritized more than at any previous COPs. Pledges were made by both developed and developing countries prior to and during the COP that took the capitalization of the new Green Climate Fund past an initial \$10 billion target.¹⁷¹

In addition, states elaborated the elements of the new agreement, while also agreeing the ground rules on how all states can submit contributions to the new agreement during the first quarter of 2015.¹⁷² These Intended Nationally Determined Contributions (INDCs) will form the foundation for climate action post 2020 when the new agreement is set to come into effect.¹⁷³ At the time of writing, the European Union, Switzerland, Norway, Mexico,

¹⁶⁷ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 107

¹⁶⁸ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 63

¹⁶⁹ UNFCCC, 'Warsaw Outcomes' http://unfccc.int/key_steps/warsaw_outcomes/items/8006.php [accessed 26.01.2015]

¹⁷⁰ *Ibid.*

¹⁷¹ UNFCCC, 'Lima to Paris' <http://newsroom.unfccc.int/lima/lima-call-for-climate-action-puts-world-on-track-to-paris-2015/> [accessed 26.01.2015]

¹⁷² *Ibid.*

¹⁷³ *Ibid.*

Gabon, Russia, and the US have all submitted their Intended Nationally Determined Contributions.¹⁷⁴ The US has set out its intentions to achieve an economy-wide target of reducing its greenhouse gas emissions by 26-28 per cent below its 2005 level by 2025.¹⁷⁵ Considering that the US is not part of the Kyoto Protocol, as was explained above, this intention indicates the potential of the new treaty to hold to account one of the highest polluting nations on earth, thereby creating a context which could lead to climate justice being realized. In addition, the EU has not only reconfirmed that its member states are committed to the 2°C target, but has also set emissions reductions in line with this target: according to the current submission, the EU plans binding target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990.¹⁷⁶ This is a goal that is more in line with the recommendations of the IPCC to lower emissions by 40-70% by 2050 than the Kyoto Protocol commitments, which aim to lower emissions by 'at least 18% below 1990 levels in the commitment period 2013 to 2020.'¹⁷⁷ This further indicates that a new global treaty, which encompasses these goals, may create a context within which emissions are lowered so that Demand One can be met.

Similarly, Switzerland intends to lower emissions by 50% by 2030 compared to 1990 levels, and Norway is committed to a target of an at least 40% reduction of greenhouse gas emissions by 2030 compared to 1990 levels, targets which are more in line with IPCC recommendations than Kyoto Protocol commitments. Mexico and Gabon, who are both not held to account under the Kyoto Protocol, have also both set intentions. Mexico will aim to reduce their emissions by 50% in comparison to 2000 levels by 2050, and Gabon aims to reduce emissions by 50% in comparison to 2000 levels by 2025.¹⁷⁸ This level of ambition by two less developed countries that are currently not held to account is very encouraging, and further indicates the potential capacity of the UNFCCC to enable a condition of climate justice by creating a context within which the demands of justice can be realized. Of course, these targets are not yet binding, and it remains to be seen what the 2015 treaty will be able to achieve. A condition of climate justice is not guaranteed at this point in time, unless the 2015 treaty presents a significant departure from the Kyoto Protocol. The Climate Action Tracker, which produces independent scientific analysis

¹⁷⁴ UNFCCC, 'INDCs as Communicated by Parties'

<http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx> [accessed 10.04.2015]

¹⁷⁵ *Ibid.*

¹⁷⁶ *Ibid.*

¹⁷⁷ UNFCCC, *Doha Amendment to the Kyoto Protocol*, United Nations, Doha (2012), p. 4

¹⁷⁸ UNFCCC, 'INDCs as Communicated by Parties'

<http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx> [accessed 10.04.2015]

produced by four research groups and provides an up-to-date assessment of individual national pledges, targets, and current policies, estimates that even with the pledges made so far, the current projections will only limit warming to 2.5 to 3.8°C by 2100, which is not sufficient to protect the human right to health.¹⁷⁹

Overall, the progress in negotiations seems to indicate movement towards increased mitigation efforts and increased funding for climate change action. This implies that the actors in the UNFCCC will continue to have the capacity to enable a condition of climate justice in the future, especially if the new treaty presents a significant departure from the Kyoto Protocol. However, it is difficult to predict whether the creation of a new legally binding treaty will be achieved, if this treaty will include all of the agreements made to date, and whether the treaty will make a significant impact on climate change action once implemented. The outcome of the next COP in Paris will be very important in terms of enabling a condition of justice. This will be further discussed in the concluding chapter of this thesis, Chapter Nine.

Nevertheless, before this, the thesis must conduct an exploratory assessment which concerns to what extent actors involved in networked climate change governance enable a condition of justice in Chapter Eight. This is necessary due to the conception of responsibility outlined in Chapter Six, which argued that the actors under the UNFCCC have formal authority to act and are therefore more responsible for enabling a condition of justice in the case of climate change. However, it was explained that this does not diminish the moral responsibility of other actors, specifically those involved in networked governance processes, if the actors under the UNFCCC should fail to enable the three demands of justice explicated in this thesis. As this chapter has clearly illustrated, actors under the UNFCCC do not fully enable the three demands of justice. Therefore, the thesis now moves onto the assessment of actors involved in networked climate change governance.

Conclusion

This chapter aimed to conduct a preliminary assessment into the extent to which actors under the UNFCCC enable the three demands of justice developed in this thesis. The assessment in this chapter is considered exploratory, and does not purport to make definitive claim about the practice of the actors under the UNFCCC. Rather, the chapter

¹⁷⁹ Climate Action Tracker, 'Effect of Current Pledges and Policies on Global Temperature' <http://climateactiontracker.org/global.html> [accessed 26.05.2015]

aimed to illustrate how the climate justice framework developed in Part II of this thesis can be used to assess current practice. This has the wider purpose of bridging the gap between climate justice literature and climate change governance research, as was explained in the Introduction of the thesis. It was argued that while the actors under the UNFCCC have made normative commitments that are arguably in line with two of the three the demands of justice explicated in this thesis, the practice of these actors does not match up to their commitments. In other words, political reality is not living up to normative rhetoric. However, it was argued that the fact that the ambitions of the actors under the UNFCCC can be interpreted as in line with two of the three demands of justice indicates that the UNFCCC has the capacity to enable a condition of justice, because the UNFCCC is setting out a context where demands of justice could be met. It was not argued that this is guaranteed, or even *likely*, but the assessment in this chapter has revealed that it is not impossible for the demands of justice set out in the thesis to be met.

The second part of the chapter discussed whether actors under the UNFCCC have the capacity to enable a condition of climate justice in the future by briefly commenting on the hindrances and positive trajectories associated with the practice of the UNFCCC, and discussing the current state of negotiations in the lead up to COP21 in Paris. It was argued that the UNFCCC will continue to have the capacity to enable a condition of climate justice in the future, especially if the new global treaty presents a significant departure from the Kyoto Protocol. Nevertheless, the fact that the UNFCCC does not fully enable any of the three demands defined in this thesis indicates that a condition of climate justice has not yet been reached. For this reason, the thesis now turns to the assessment of networked climate change governance processes.

Chapter Eight – Assessing Networked Climate Change Governance

Introduction

This chapter makes up the third and final chapter which constitutes Part III of this thesis: ‘Assessing Current Institutional Practice.’ Chapter Six argued that both actors under the United Nations Framework for the Convention on Climate Change (UNFCCC) and actors involved in networked climate change governance processes have a moral responsibility to enable a condition of justice, due to their capability of restructuring the context so that the three demands defended in this thesis can be met. The previous chapter, Chapter Seven, therefore aimed to assess to what extent actors under the UNFCCC enable a condition of justice in the case of climate change. It was put forward that actors under the UNFCCC fail to fully enable the three demands of justice set out in this thesis, which suggest that networked governance actors must act on their responsibilities because a condition of justice has not yet been achieved. In light of this, the current chapter concerns to what extent actors involved in networked climate change governance meet their institutional responsibility to enable a condition of justice in the case of climate change.

The assessment in this chapter should be considered as exploratory. The chapter does not purport to make definitive claims about the practice of networked climate change governance actors. Rather, the chapter aims to illustrate how the climate justice framework developed in Part II of this thesis can be used to assess current practice. This has the wider purpose of bridging the gap between climate justice literature and climate change governance research by illustrating that climate justice theorists have the potential to provide normative insights into current practice, as was explained in the Introduction of the thesis. Furthermore, a comprehensive assessment of networked climate change justice is not possible within the scope of this thesis. The thesis places an emphasis on both the development of a climate justice position and the application of this position, which allows somewhat limited space for the assessment of current practice. In addition, networked climate change governance is a vast, ever expanding field. For this reason, it is difficult to discern the ‘total universe’ of networked climate change governance, or assess the processes that are occurring definitively or completely, especially within the space of one chapter.¹ Nevertheless, the assessment conducted in this chapter aims to tentatively illustrate what the application of the climate justice position developed in this thesis can reveal about networked climate change governance practice.

¹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 19

In order to overcome the difficulty of capturing networked climate change governance comprehensively or definitively, the chapter will rely on existing research on the subject of networked climate change governance, rather than attempt to conduct a systematic, independent empirical assessment of examples of networked climate change governance. Independently assessing examples of networked climate change governance processes would no doubt be valuable, but would provide limited insight into the broader picture of networked climate change governance, which is what the chapter is attempting to capture. Importantly, although the assessment relies on existing research, the chapter will use the framework of climate justice developed in Part II in order to analyze this research. In this way, the chapter presents a climate justice focused meta-analysis of the recent findings of networked climate change governance scholars. Through this meta-analysis, the chapter is able to provide insights into the extent to which networked climate change governance actors are enabling a condition of climate justice. These insights are valuable because there has to date been little analysis of the implications of networked governance initiatives on social and environmental justice.² The existing networked governance research discussed in this chapter lies firmly outside of the climate justice literature, and does not concern itself with questions of what is just. By drawing on existing research on current practice, and analyzing this from a climate justice perspective, the chapter is able to provide unique climate justice based insight on processes of networked climate change governance.

The chapter will be organized into two parts. The first part of the chapter will concern a climate justice focused assessment of networked climate change governance. The chapter will explain how the meta-analysis will be conducted, and what this can reveal in terms of climate justice. The chapter will then take each demand of justice in turn, and use existing research on networked climate change governance to provide climate justice specific insights into current practice. Each section will include illustrative examples of networked climate change governance, and focus on both positive trajectories and existing hindrances facing networked climate change governance actors. The aim of this first section is to tentatively assess to what extent actors involved in networked climate change governance can be said to be enabling the three demands of justice. After a brief summary of the findings made, the chapter will then turn to its second section, which concerns the future of networked climate change governance. This section will discuss why there is room for

² Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 68

cautious optimism regarding the capacity of networked climate change governance actors to enable a condition of justice in the future. Although networked climate change governance, as a whole, presents a space for continued action, innovation, and the potential for change, it also presents a business as usual approach, and faces many of the same problems as the UNFCCC. The chapter will conclude with a reflection on what has been found.

Networked Climate Governance: A Justice Based Evaluation

Assessing networked climate change governance actors is not as straightforward a task as assessing actors under the UNFCCC, who operate under a common framework and aim to create a global treaty. As was explained in Chapter Six, networked climate change governance actors are not focused on a single outcome and instead push the global response to climate change in a number of directions. In this sense, networked climate change governance is a collection of individual initiatives which are decentralized and self-organized.³ This makes it difficult to ascertain what exactly is occurring within this type of governance. Furthermore, recent years have produced a ‘Cambrian explosion’ of networked climate change governance initiatives.⁴ It is therefore challenging to discern the ‘total universe’ of networked climate change governance activities.⁵ In fact, the exact number of networked climate change governance initiatives is unknown,⁶ although it is estimated that the numbers of projects in existence is in the thousands.⁷ To make matters more complicated, most networked climate change governance initiatives are relatively new and are experimental in the sense that we cannot yet be sure how they will turn out.⁸

It is perhaps for this reason that there has been limited systematic analysis of the ways in which climate change is addressed by networked climate change governance actors.⁹ Examples of this type of analysis include Kenneth Abbott’s research, which mapped sixty-

³ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 156

⁴ Abbott, K. W., ‘The Transnational Regime Complex for Climate Change’ in *Environment & Planning C: Government & Policy* 30(4) (2012) p. 571

⁵ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 19

⁶ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 25

⁷ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 87

⁸ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. x

⁹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 11

seven transnational organizations,¹⁰ and Matthew Hoffman's work, which provided an assessment of fifty-eight climate governance initiatives.¹¹ Similarly, Harriett Bulkeley et al.'s research assessed sixty examples, and provides the most up to date comprehensive overview of this type of governance at the time of writing.¹² This type of systematic analysis is not only rare, but also faces significant limitations. For example, Bulkeley et al. limit themselves to projects which were in existence between October 2008 – March 2010, and which have publicly accessible English language websites.¹³ This limits their research to a narrow time frame and sample. Furthermore, although Bulkeley et al. claim to provide a broad overview of the implications and significance of networked climate change governance,¹⁴ these scholars admit that it would be impossible to find a 'representative' or even 'random' sample of networked climate change governance.¹⁵ All of the above is indicative of the fact that networked climate change governance is an overwhelmingly complex set of processes, which are difficult to capture, let alone assess.

For this reason, it is not possible within the scope and space of this chapter to independently analyze networked climate change governance. Nevertheless, the assessment conducted in this chapter aims to tentatively illustrate what the climate justice position developed in this thesis can reveal about networked climate change governance practice. In order to achieve this, the chapter will rely on existing research on the subject of networked climate change governance, rather than attempt to conduct a systematic, independent empirical assessment of networked climate change governance. Attempting such an assessment in the space of one chapter would necessarily require a focus on a very small number of examples of networked climate change governance, which would provide limited insight into the broader picture of networked climate change governance. For this reason, the chapter will rely on existing research in order to gain broader insight into the processes of networked climate change governance. This will arguably reveal more about the state of current practice than an analysis of a handful of examples, and will provide a broader scope for a climate justice based assessment.

¹⁰ Abbott, K. W., 'The Transnational Regime Complex for Climate Change' in *Environment & Planning C: Government & Policy* 30(4) (2012) pp. 571 – 590

¹¹ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011)

¹² Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015)

¹³ *Ibid.*, p. 23

¹⁴ *Ibid.*, p. 2

¹⁵ *Ibid.*, p. 19

It is worthwhile to reiterate that although the assessment conducted here draws on existing research, the chapter places this research under the framework of climate justice developed in Part II of this thesis. In this way, the chapter represents a climate justice focused meta-analysis of the most recent findings of networked climate change governance scholars. Through this meta-analysis, the chapter is able to provide insights into the extent to which networked climate change governance actors are enabling a condition of climate justice. This type of analysis has previously not been attempted by climate justice scholars.¹⁶ For this reason, although the thesis does not conduct an independent assessment of networked climate change governance processes, it still represents a significant amount of original research, and makes an important contribution to the climate justice field.

The assessment will be structured as follows. The chapter will take each demand of justice in turn, and rely on existing research on networked climate change governance to assess to what extent actors within this type of governance enable the demand. Chapter Six explained that a demand of justice is 'enabled' when the context is structured so that the demand can be met. In addition to using existing research, the chapter will also draw on brief illustrative examples in order to clarify the claims that are made. These examples should not be seen as representative of networked governance as a whole. It was explained above that this is not possible, because the total number of initiatives under this type of governance is not known. Instead, the chapter will draw on ten examples that have been selected due to their relevance to the assessment, and their prominence within existing research of networked climate change governance. This ensures that the examples used tie in well to existing literature on the subject, which is important because the thesis aims to engage in this literature and contribute to it. The examples which will be used are: The C40, the Climate Group, the Global Methane Initiative, the Asian Cities Climate Change Resilience Network, the Asia Pacific Partnership on Clean Development and Climate, the Carbon Sequestration Leadership Forum, the Verified Carbon Standard, the Regional Greenhouse Gas Initiative, Carbon Trade Watch, and Transition Towns. Although the thesis has limited the number of examples in order to make analysis more manageable, these ten examples of current practice serve to provide an insight into the complexities of networked climate change governance. The examples include a wide range of actors, namely states, cities, corporations, and individuals, as well as a wide range of governance mechanisms,

¹⁶ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 68

namely information sharing, monitoring, reporting, market mechanisms, capacity building, and rule-setting. In this way, the examples, although not representative or all encompassing, serve to provide an overview of a range of actors, mechanisms, and types of initiative involved in networked climate change governance.

Each demand of justice will now be examined in turn. In doing so, the chapter will make climate justice related insights into the positive trajectories and current hindrances facing networked climate change governance. The assessment will focus on the capacity of actors to create a context where the demands of justice can be met, and discuss what this implies in terms of climate justice. The chapter will make use of the four point hierarchy developed in Chapter Six, which is outlined below for the purpose of clarity:

The Four Point Hierarchy

1. Actors in the institution enable the demand of justice – the demand of justice is unequivocally fulfilled in its entirety.
2. Actors in the institution are consistently working towards enabling the demand of justice – the demand of justice is not yet fulfilled, but there are policies in place which are consistently leading towards this goal.
3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.
4. Actors in the institution do not enable the demand of justice – there has been no promise or attempt to enable the demand of justice and there are no policies in place.

Demand One – The Right to Health of Future Generations

Demand One states that the right to health¹⁷ of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected. The thesis has explained, in Chapter Four, that this requires that the change in global temperature is kept at or below 2°C relative to preindustrial levels. It was explained in Chapter One that this will require reducing global greenhouse gas (GHG) emissions by 40% - 70% by 2050 compared to 2010, and to zero or below by 2100. The previous chapter made the case that actors under the UNFCCC are not enabling Demand One of justice because the Kyoto Protocol only targets 15% of global emissions, and only aims to lower

¹⁷ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

emissions by 18% below 1990 levels in the commitment period 2013 to 2020.¹⁸ In addition, although new targets are currently being negotiated under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) in the run up to the 21st Conference of the Parties at Paris, it is not yet clear whether these targets will represent a significant departure from the Kyoto Protocol. When assessing actors involved in networked climate change governance, it is therefore important to assess whether these actors fare better than actors in the UNFCCC and create a context which allows for a lowering of global emissions in line with Intergovernmental Panel on Climate Change recommendations.

The impact of networked climate change governance on global GHG levels is subject to ongoing debate. So far, evidence is mixed in terms of impact and effectiveness.¹⁹ This is because measuring emissions reductions which result from networked climate change governance processes is extremely difficult. In fact, some scholars claim that the long-term effects of networked climate change governance processes on GHG levels are impossible to estimate.²⁰ As Bulkeley et al. put it, 'frustratingly, [GHG emissions] may be the worst metric to apply' to assess networked climate change governance, for several reasons which are outlined below.²¹ First, many, if not most initiatives are not directly involved in emission reductions. Rather, most are focused on providing information, incentives and capacity building for others to reduce their emissions. It is nearly impossible to trace emission reductions from the activities that have the explicit goal of increasing the capacity for others to reduce their own emissions. Second, the scope of networked climate change governance initiatives, in terms of whose or which emissions are to be reduced are extremely unclear. In contrast, there is a clear scope of emissions under the UNFCCC: if a state commits itself to reduce emissions by a certain percent, this state is a defined entity whose emissions can in principle be measured. Tracing impacts of networked climate change governance projects is much more complex because these initiatives involve so many different actors and projects. In addition, unlike the UNFCCC, emissions reductions are not seen as the sole solution to the climate change problem within networked climate change governance. Actors within these processes work on energy efficiency, changes in transportation and infrastructure, or development and deployment of climate friendly technology, efforts that will have an indirect impact on emissions reductions, which are

¹⁸ UNFCCC, *Doha Amendment to the Kyoto Protocol*, United Nations, Doha (2012), p. 4

¹⁹ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 66

²⁰ Pattberg, P., 'Public-Private Partnerships in Global Climate Governance', in *WIRE's Climate Change*, 1 (2010), p. 281

²¹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 159 - 161

difficult to measure. Furthermore, some projects may catalyze a change, for example by illustrating that a new technology is viable through a pilot project, which may lead to widespread adoption of this technology and result in emissions reductions which are difficult to attribute to the initial project.

Even if initiatives specifically set targets for emissions reductions, it is difficult to measure whether these targets have been met. Networked climate change governance projects have only been in operation for a short time, lack common baselines and/or do not have strong monitoring mechanisms in place, which makes assessing their collective effect on GHG emissions nearly impossible.²² In addition, projects greatly differ in scale, scope, and ambition, which makes it difficult to compare these projects across the board.²³ Establishing the basis upon which accomplishments might be measured and accruing substantial evidence on these remain challenging and relatively unexplored research tasks.²⁴ For this reason, data on the level of emissions reductions resulting from networked climate change governance projects is almost non-existent. Beyond evidence of leadership on climate action, evidence of concrete measurable impacts is scarce.²⁵ As can be seen above, existing research on networked climate change governance processes makes it very clear that it is problematic to measure the effects that networked climate change governance initiatives have on global emissions levels. This renders it impossible to definitively claim that actors within networked climate change processes enable Demand One by restructuring the context so that global emissions can be lowered to prevent a rise in temperature above 2°C.

The lack of evidence on emission reductions has led some critics to claim that networked climate change governance activity is merely a distraction from the hard work that is occurring at the multilateral level.²⁶ In addition, some skeptics of networked climate change governance claim that the initiatives are simply about ‘greenwashing:’ it is more important for actors to show that something is being done, rather than make an actual impact on emissions.²⁷ However, this dismissal of networked climate change governance may be too

²² Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 160

²³ Pattberg, P., ‘Public–Private Partnerships in Global Climate Governance’, in *WIRE’s Climate Change*, 1 (2010), p. 281

²⁴ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 158

²⁵ *Ibid.*, p. 161

²⁶ *Ibid.*, p. 158

²⁷ *Ibid.*, p. 160

hasty. Considering that many initiatives are still relatively new, it may be too early to tell, definitively, whether this type of governance represents a case of greenwashing, or whether actors within these processes are able to create a context which allows for significant emissions reductions.

Since concrete evidence is somewhat lacking, it may, for the time being, be necessary to focus on the capacity of networked climate change governance actors to reduce emissions. Importantly, focusing on capacity leaves some room for optimism in terms of Demand One. It is clear from the discussion in this thesis that a climate regime that can limit warming to 2°C or below will need broad participation within a relatively few-decades. Networked climate change governance actors have the capacity to create a context where this is possible, because these processes operate across multiple scales and engage a wide range of actors in the global response to climate change.²⁸ This has allowed for pursuit of interests in climate change in a way that was simply not possible before.²⁹ Unconstrained by the consensual decision making found in multilateral treaty making process, networked climate change governance initiatives have been free to pursue multiple kinds of responses to climate change - there are virtually no limits on what actors can do to respond to climate change.³⁰ This has not only resulted in increased participation in climate change action, but also raised ambitions: many initiatives include targets and timetables for reducing emissions of GHGs that go far beyond those agreed under the UNFCCC.³¹ In addition, many projects target emissions of GHGs that are not covered by international and national climate policy, for example corporate emissions.³² In sum, existing research suggests that the nature of networked climate change governance processes allows for increased participation, makes it possible to target emissions outside of the UNFCCC, and raises ambitions for lowering emissions. All of the above tentatively suggests that actors in networked climate change governance have the capacity to create a context within which emissions can be lowered, which creates space for Demand One to be met. Broadening participation and raising emissions reductions targets implies a capacity to lower emissions outside of the multilateral process, which would add to global efforts of lowering emissions.

²⁸ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 158

²⁹ *Ibid.*, p. 164

³⁰ *Ibid.*, p. 165

³¹ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 67

³² *Ibid.*

The capacity to create a context where Demand One can be met will now be further explored with reference to two illustrative examples: the C40, a public project which consists of a network of cities, and the Climate Group, a hybrid initiative which consists of public actors such as sub-state authorities as well as private actors such as corporations. Before these illustrative examples are very briefly explored, the chapter will note the importance of two types of actors within these projects which play a particularly important role in terms of emissions reductions: cities and corporations.

Cities are home to half the world's population, consume over two thirds of the world's energy and account for more than 70% of carbon emissions.³³ Cities will continue to play a significant role in terms of emissions, because by 2030, two thirds of the world's population is predicted to live in urban areas.³⁴ It is therefore crucial that cities are involved in the process of lowering global emissions, because they account for a majority of emissions and encompass a majority of the global population, implying a high capacity to influence emission levels. In addition, scholars who study networks of cities have found that cities who take ambitious action can act as a positive example and role models, and pressure their federal governments to take action on lowering emissions.³⁵ Beyond lowering emissions, cities can also disseminate knowledge. City networks, such as the C40, can exchange best practices on issues ranging from energy-efficient buildings to water and waste treatment. As a result, they are key actors when it comes to disseminating applied knowledge and solutions to the challenge of climate change.³⁶ Scholars researching cities argue that this may provide some of the momentum necessary to move toward decarbonization.³⁷ For these reasons, cities can be said to be especially important in terms of creating a context where emissions can be lowered in order to protect the human right to health, and why the C40 presents a useful illustrative example.

Similarly, corporations play a critical role in the production of global emissions. The private sector accounts for more than one third of energy consumed worldwide and corporations

³³ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 104

³⁴ *Ibid.*

³⁵ Pattberg, P., 'The Role and Relevance of Networked Climate Governance' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 152

³⁶ *Ibid.*

³⁷ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 120

often emit significantly more GHGs than major cities.³⁸ A Greenpeace study found that Shell emits more than Saudi Arabia, Amoco more than Canada, Mobil more than Australia, and British Petroleum, Exxon and Texaco more than France, Spain, and the Netherlands combined.³⁹ This indicates that corporations produce a high percentage of global emissions, and must necessarily be part of the global effort to reduce emissions, due to their capacity to influence the global level of GHGs. Beyond simply lowering emissions, scholars who study corporations argue that groups of corporations can effectively institutionalize new norms at the transnational level, for example the norm to disclose corporate carbon emissions.⁴⁰ These emerging norms are expected to motivate and facilitate meaningful dialog among business actors, investors and the wider public to induce corporate responses to climate change.⁴¹ Furthermore, the United Nations estimates that 98% of global investment and financial flows required to tackle climate change will need to come from the private sector, because the private sector develops and disseminates most of the world's technology.⁴² For this reason, the private sector will play a significant part in implementing and financing individual governments' climate change policies.⁴³ Although corporations are no doubt part of the problem, it seems that these actors are also a crucial part of the solution. It is for this reason that projects such as the Climate Group are so relevant and important to creating a context within which emissions can be lowered enough to protect the right to health of future generations.

The C40 and the Climate Group will now be briefly discussed in order to further the argument that networked climate change governance actors have the capacity to enable Demand One. The C40 is a useful example of the capacity of networked climate change governance actors to lower emissions, because this initiative specifically aims to do so. The C40 is a network of the world's largest cities, which aims to share best practices and develop collaborative initiatives on city specific issues in order to make implementing the global response to climate change more feasible.⁴⁴ Through this, the C40 promises to have

³⁸ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 87

³⁹ *Ibid.*, p. 2

⁴⁰ Pattberg, P., 'The Role and Relevance of Networked Climate Governance' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 159

⁴¹ *Ibid.*, p. 160

⁴² Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p 88

⁴³ *Ibid.*

⁴⁴ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 95

‘a meaningful global impact in reducing both greenhouse gas emissions and climate risks.’⁴⁵

A table of the cities participating in the C40 can be found below.⁴⁶

East Asia	Beijing, Changwon, Hong Kong, Seoul, Shanghai, Tokyo, Yokohama
Africa	Addis Ababa, Johannesburg, Cairo, Lagos
Europe	Amsterdam, Athens, Barcelona, Basel, Berlin, Copenhagen, Heidelberg, Istanbul, London, Madrid, Milan, Moscow, Oslo, Paris, Rome, Rotterdam, Stockholm, Venice, Warsaw
Latin America	Bogota, Buenos Aires, Caracas, Curitiba, Lima, Mexico City, Rio de Janeiro, Santiago de Chile, Sao Paulo,
North America	Austin, Chicago, Houston, Los Angeles, New Orleans, New York, Philadelphia, Portland, San Francisco, Seattle, Toronto, Vancouver, Washington DC
Southeast Asia and Oceania	Bangkok, Hanoi, Ho Chi Minh City, Jakarta, Melbourne, Singapore, Sydney
South and West Asia	Delhi NCT, Dhaka, Karachi, Mumbai

Importantly, only 19 out of the 70 participating cities (highlighted above) are held to account for emissions reductions under the Kyoto Protocol. This is quite promising in terms of creating a context for lowering emissions because if the 51 cities not held to account under the Kyoto Protocol lower their emissions because of the C40, this will add to multilateral governance efforts (which currently account for 15% of global emissions) and contribute to lowering global emissions level by 40-70% of 2010 levels by 2050. In addition to holding new actors to account, the C40 also encompasses a large part of the global population: the cities involved in C40 account for one in twelve people worldwide, formally representing approximately 302 million people.⁴⁷ The C40 therefore has the capacity to make a very real impact on climate change mitigation, by creating a broad network, or context, within which emissions can be reduced.

The C40 currently has over 8,000 climate change initiatives in place.⁴⁸ Projects run by the C40 fall into several categories, including adaptation and water, energy, finance and economic development, measuring and planning, solid waste management, sustainable communities, and transportation.⁴⁹ This is quite a large distribution of activities, which is

⁴⁵ C40, ‘C40’ <http://c40.org/> [accessed 04.12.2014]

⁴⁶ C40, *Climate Action in Megacities* Volume 2.0 (2014), http://c40.org/blog_posts/CAM2 [accessed 04.12.2014], p. 236

⁴⁷ Pattberg, P., ‘The Role and Relevance of Networked Climate Governance’ in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 151

⁴⁸ C40, ‘The Cities’ <http://www.c40.org/cities> [accessed 04.12.2014]

⁴⁹ *Ibid.*

promising because the C40 has the potential to help cities lower emissions in multiple ways. However, and perhaps unsurprisingly given the discussion above, there is a lack of data on the effect of the C40's efforts. Although the C40 released a report in 2014 which claims to 'provide compelling evidence of the importance of the C40 network,' this report does not make mention of emissions reductions.⁵⁰ Nevertheless, it is arguable that the C40 has the capacity to create a context within which global emissions can be lowered, because it includes a broad range of cities, encompasses a large part of the global population, and has over 8,000 current projects which address a multitude of issue areas, ensuring that cities can pursue emissions reductions in a number of ways. In addition, Bulkeley et al., in their assessment of networked climate change governance, have found that the C40's goals of information sharing and taking concrete action for reducing emissions has proven to be an effective tool for motivating cities to take action they likely otherwise would not have.⁵¹ Therefore, although it is not possible to definitively claim that the C40 has had a substantial effect on global emissions levels, it is reasonable to argue that this initiative creates a context under which this is possible. This does not mean that emissions will definitely be reduced, or even that this is *likely*. Nevertheless, it is not impossible, due to the context that is being created by the C40. This will be further discussed below, after a brief insight into the Climate Group.

The Climate Group is another useful example of the capacity of networked governance actors to lower emissions, because it aims to create a 'prosperous, low carbon future for all.'⁵² More specifically, the Climate Group aims to create a clean revolution through the rapid scale-up of low carbon energy and technology.⁵³ This is indicative of the project's aims to lower global emissions. The Climate Group is made up of over one hundred major corporations, sub-national governments and international institutions.⁵⁴ These corporations and institutions are spread across the globe. For example, corporate members range from Ikea (Sweden), Dell (America) and Taobao (China), and public members include

⁵⁰ C40, *Climate Action in Megacities* Volume 2.0 (2014), http://c40.org/blog_posts/CAM2 [accessed 04.12.2014], p. 3

⁵¹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 171

⁵² Climate Group, 'Who We Are' <http://www.theclimategroup.org/who-we-are/about-us/> [accessed 05.12.2014]

⁵³ *Ibid.*

⁵⁴ Climate Group, 'Our Achievements' <http://www.theclimategroup.org/our-achievements/> [accessed 05.12.2014]

California, South Australia, Rio De Ja Nero, Mumbai, Kolkata, and Toronto.⁵⁵ Importantly, out of the 81 cities, states and provinces participating in the Climate Group, only 18 are held to account for lowering emissions under the Kyoto Protocol. If emissions are lowered by the 63 cities that are not held to account under the Kyoto Protocol, this could contribute to the lowering of global emissions because this will add to multilateral governance efforts. In addition, as was explained in Chapter Seven, corporations are not held to any direct account under the Kyoto Protocol, because only states containing these corporations are held to account. Any corporations existing in states outside of Kyoto control reducing emissions as a result of the Climate Group therefore add to multilateral efforts to lower global emissions. In addition to representing a large number of cities and corporations not held to account under the Kyoto Protocol, members of the Climate Group represent a significant amount of wealth and global population. The Climate Group claims that the combined revenue of its corporate members is estimated to be in excess of US\$1 trillion, while its city and regional partners represent almost half a billion people.⁵⁶ This is promising in terms of possible financial contributions to the climate change cause, and for lowering global emissions, because the Climate Group encompasses a substantial part of the population and has wealthy corporate backers which can help implement its initiatives. This creates a context within which global emissions can be significantly lowered.

In order to promote the scale up of clean technology, the actors in the Climate Group pilot solutions that can be replicated worldwide.⁵⁷ For example, the LED Lighting Project, in place in major cities such as London, New York, Hong Kong, and Mumbai, has shown that switching to LED lights in cities can present energy savings as high as 80%.⁵⁸ This is quite promising, especially if this kind of energy saving can be applied to all cities across the world. Street lighting account for 6% of global emissions levels, which is the equivalent of GHG emissions from 70% of the world's passenger vehicles.⁵⁹ If the LED Lighting Project is applied globally it would contribute to lowering the 6% of global emissions associated with streetlight down to 1.2%, because LED lamps are 80% more efficient than normal street

⁵⁵ Climate Group, 'Who We Are' <http://www.theclimategroup.org/who-we-are/about-us/> [accessed 05.12.2014]

⁵⁶ Climate Group, 'Our Achievements' <http://www.theclimategroup.org/our-achievements/> [accessed 05.12.2014]

⁵⁷ Climate Group, 'Who We Are' <http://www.theclimategroup.org/who-we-are/about-us/> [accessed 05.12.2014]

⁵⁸ Climate Group, *Lighting the Green Revolution* (2012) available from http://www.theclimategroup.org/assets/files/LED_report_web1%283%29.pdf [accessed 05.12.2014], p. 24

⁵⁹ Climate Group, 'LED Lighting' <http://www.theclimategroup.org/what-we-do/programs/LED/> [accessed 05.12.2014]

lamps. Through projects such as the LED Light Project, the Climate Group aims to ‘break the Climate Deadlock’ and advocate for stringent global action by demonstrating the availability of solutions.⁶⁰ This indicates that the Climate Group is attempting to create a context within which emissions can be lowered, by demonstrating solutions that can make a difference to emissions levels. Unfortunately, there is not much concrete evidence available on whether the Climate Group is able to live up to its ambitions, which is perhaps unsurprising given that there is a lack of evidence across networked climate change governance projects. Nevertheless, it is evident from the above that the Climate Group has the capacity to create a context within which emissions can be lowered. Again, this does not indicate that the Climate Group will definitely lower emissions, or even that this is *likely*, but rather that this is not impossible.

The discussion and examples above have served to illustrate that actors involved in networked climate are creating a context which allows for increased participation and increased ambition, thereby raising expectations about what is possible to achieve. As was explained above, this indicates that these actors have the capacity to create a context within which emissions can be lowered. Furthermore, the use of examples above illustrated that some initiatives, such as the C40 and Climate Group, explicitly aim to lower emissions, further indicating that networked climate change governance actors have the capacity to lower global emissions. Of course, this does not mean that networked climate change governance actors *will* lower global emissions, but rather that they have the capacity to do so. As was discussed in Chapter Six, capacity implies responsibility, even if the probability of an action is low. In this sense, it is not morally relevant whether it is likely that actors involved in networked climate change governance will enable Demand One, because these actors are morally responsible for doing so. In sum, although it is not possible to claim that networked climate change governance actors fully enable Demand One, it has been argued above that networked climate change governance actors have the capacity to create a context within which emissions can be lowered, and Demand One can therefore be met, and that some initiatives, such as the C40 and Climate Group, explicitly aim to lower emissions. In terms of the climate justice hierarchy, this tentatively places networked climate change governance actors on rung three of the four point hierarchy:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the

⁶⁰ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 85

potential for the creation of policy in order to consistently work towards enabling the demand of justice.

Although it cannot be said that all actors within networked climate change governance have promised to begin working on enabling Demand One in the future, because this is impossible to claim due to vast amount of projects in existence, the discussion has served to tentatively illustrate the potential for policy which enables Demand One. The potential for policy lies in fact that there is a context under which policy for lowering emissions can be created, and that some initiatives, like the C40 and Climate Group, are already pursuing such policies. Unfortunately, there is not enough evidence to suggest that these policies are consistently enabling Demand One. For this reason, networked climate change governance actors remain on the third rung of the hierarchy.

Finally, although there is potential for policy, there is also room for pessimism. So far networked climate change governance has not delivered anything remotely close to matching the scale of the climate change problem.⁶¹ While it may be too soon to tell, current research confirms that networked climate change governance remains a long way from achieving significant emissions reductions.⁶² This lack of effectiveness in terms of emissions reductions therefore presents an existing hindrance faced by networked climate change governance actors. Furthermore, this apparent lack of effectiveness has led some critics to claim that networked climate change governance actors are merely pursuing their own interests, rather than making fundamental changes to the global response to climate change.⁶³ This will be further discussed in the second part of this chapter. For now, it is worth reiterating that determining the effectiveness of networked climate change governance in terms of emissions reductions is very problematic, and could lead to a premature dismissal of governance initiatives as a serious part of the global response to climate change.⁶⁴ For this reason, the chapter now moves on to exploring whether actors involved in networked climate change governance enable Demands Two and Three of justice, to get a better sense of the overall role of networked climate change governance actors can play in enabling a condition of climate justice.

⁶¹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 3

⁶² Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 171

⁶³ *ibid.*, p. 165

⁶⁴ *ibid.*, p. 161

Demand Two – Less Developed Countries

Demand Two states that the concerns of less developed countries must be properly considered in climate change action (this will be referred to as part one of Demand Two below, for the sake of clarity). In addition, the distribution of benefits and burdens in global climate change action should be based in the PATP⁶⁵ model, defended in Chapter Five (this will be referred to as part two of Demand Two below). Chapter Seven made that case that actors under the UNFCCC make normative commitments to enable Demand Two, but fail to implement policy which ‘consistently works towards enabling’ Demand Two of justice. When assessing networked climate change governance actors below, it will therefore be important to ascertain whether these actors go beyond merely promising to properly consider less developed countries’ concerns and implement policies which enable the PATP model. This would set networked climate change governance actors apart from actors under the UNFCCC in terms of reshaping the context so that Demand Two can be met. Chapter Five explained that the category of less developed country is contested, and will be defined in this thesis in line with the categories of the UNFCCC, which refers to less developed countries under the categories of non-Annex I and Least Developed Countries. This is a broad category, and for this reason the differences between richer, larger less developed countries like the BRICS (Brazil, Russia, India, China, South Africa) countries, and those countries which are very poor and vulnerable to climate change will be kept in mind and referred to in the assessment which follows.

The general consensus in networked climate change governance research is that less developed countries are marginalized within this type of governance.⁶⁶ Bulkeley et al. for example show that the majority of projects in their database (87%) were initiated by actors in developed countries.⁶⁷ Phillip Pattberg has made a similar observation, noting that networked climate change governance seems to favor actors from a certain area of the world: namely Western, developed nations, primarily the United States (US), Canada, and

⁶⁵ Polluter’s Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

⁶⁶ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 119

⁶⁷ *Ibid.*, p. 32

Australia.⁶⁸ Furthermore, in Matthew Hoffman's sample of 58 projects, only seven were initiated by a combination of actors in developed and less developed countries, and the rest were initiated by developed country actors.⁶⁹ This lack of inclusion conflicts with part one of Demand Two, which states that less developed country concerns must be fully considered in climate change action. Chapter Five outlined three main less developed country concerns: 1) the acknowledgment that developed countries have contributed most to the climate change problem, 2) that less developed countries face greater immediate problems which must be addressed before they can act on climate change, and 3) that less developed countries have a right to develop before they must make contributions to climate change efforts. It is difficult to fully consider these concerns if less developed countries are not included in climate change governance. If they are not included, they cannot contribute to decision making about what action to take on climate change, and the decisions made in their absence may not reflect their concerns. This may be why a 'bulk of less developed countries' continue to support multilateral climate change governance.⁷⁰

Nevertheless, it is worth noting that networked forms of climate change governance are expected to broaden participation and increase the inclusion of otherwise marginalized actors.⁷¹ In this way, networked climate change governance actors may create a context within which the concerns of less developed countries can be fully considered over time. Interestingly, the newest study by Bulkeley et al. seems to indicate that networked climate change governance is moving in this direction. These scholars found that 77% of their sixty initiatives have at least one actor from a less developed country, and 67% have at least two.⁷² Importantly, out of the 46 projects that include less developed country members, 33 involve non-BRICS participants, indicating that it is not only the richer less developed countries that are participating.⁷³ As Bulkeley et al. note, if networked climate change governance were predominantly driven by what was occurring under the UNFCCC, BRICS

⁶⁸ Pattberg, P., 'The Role and Relevance of Networked Climate Governance' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 151

⁶⁹ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 30

⁷⁰ Biermann, F., Pattberg, P., Zelli, F., and Van Asselt, H., 'The Consequences of a Fragmented Climate Governance Architecture: A Policy Appraisal' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 31

⁷¹ Pattberg, P., 'Public-Private Partnerships in Global Climate Governance', in *WIRE's Climate Change*, 1 (2010), p. 279

⁷² Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 32

⁷³ *Ibid.*

countries would be expected to be the primary participants because of their growing role in multilateral governance, but this appears not to be the case.⁷⁴ In this way, networked climate change governance processes include a wider variety of actors from less developed countries than the UNFCCC.

However, only 7% of the initiatives highlighted by Bulkeley et al. solely involve participants from developing countries.⁷⁵ In addition, these scholars found a significant regional variation to participation, with the regions of Sub-Saharan Africa (SSA), Oceania, and the Middle East and North Africa (MENA) remaining particularly underrepresented.⁷⁶ Bulkeley et al.'s findings indicate that North America and Europe are at the core of the networked governance world, closely followed by Asia.⁷⁷ Overall, these regional patterns mimic closely the way that diplomats from large parts of the developing world have less capacity to shape the multilateral regime.⁷⁸ Importantly, underrepresentation can directly affect which interests are taken into account.⁷⁹ For example, for those actors most marginalized (SSA and Oceania), adaption is a key concern. Networked climate change governance actors appear to favor mitigation over adaptation, suggesting a hindrance to enabling the first part of Demand Two, since adaptation is a key concern of poorer less developed countries which is not being fully considered in climate change action. In Hoffman's study, 40 out of 58 projects focus exclusively on mitigation, and another 16 pursue a mix of mitigation and adaptation efforts.⁸⁰ In the study conducted by Bulkeley et al., only 3% of initiatives focus solely on adaptation, 75% focus exclusively on mitigation, and 22% on both.⁸¹ Interestingly, when looking at those projects that involve less developed countries, the numbers vary only slightly: 64% of projects focus on mitigation alone, 4% on adaptation alone and 22% on both.⁸² This indicates that although networked climate change governance includes less developed country actors, the exclusion of countries from regions which are most concerned with adaptation is having an effect on networked governance project priorities.

⁷⁴ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 32

⁷⁵ *Ibid.*, p. 120

⁷⁶ *Ibid.*, p. 123

⁷⁷ *Ibid.*, p. 124

⁷⁸ *Ibid.*, p. 125

⁷⁹ *Ibid.*, p. 130

⁸⁰ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 40

⁸¹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 130

⁸² *Ibid.*

And yet, there is some room for optimism. Hoffman argues that adaptation has only recently emerged as a key feature of networked climate governance.⁸³ He hopes that adaptation will become an increasingly important component of the global response to climate change in the future, as networked climate change governance actors come to see adaptation as key to climate change governance.⁸⁴ There is also room for optimism because of the high participation by less developed countries found in Bulkeley et al.'s study, especially as this finding was unexpected for the scholars. Their research indicates that networked climate change governance actors create a context where less developed country participation is more diverse than under the UNFCCC. This implies optimism in terms of taking concerns of less developed countries into account. To further illustrate why there is room for optimism in terms of the first part of Demand Two, the chapter will now turn to two brief illustrative examples: The Global Methane Initiative and the Asian Cities Climate Change Resilience Network.

The Global Methane Initiative is a useful example of the capacity of networked climate change governance actors to create a context where the concerns of less developed countries are taken into account. It is a hybrid initiative involving both state and non-state actors, and is the only project within Bulkeley et al.'s sample whose founding members included more than two less developed countries.⁸⁵ The founding members of the Global Methane Initiative are Australia, Brazil, China, Colombia, India, Italy, Japan, Mexico, Russia, Ukraine, the UK and the USA.⁸⁶ Chapter Five defined China, Colombia, India, and Mexico as less developed countries, because these are outside of Annex-I under the UNFCCC.⁸⁷ However, none of these countries fall under the category of Least Developed, indicating that although the Global Methane Initiative has a high number of richer less developed country founding members, it still marginalizes the poorest. Perhaps unsurprisingly, the Global Methane Initiative is not concerned with adaptation, but prioritizes mitigation through methane abatement. It prides itself in being the only international effort to

⁸³ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 40

⁸⁴ *Ibid.*, p. 41

⁸⁵ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 32

⁸⁶ Global Methane Initiative 'Partner Countries' <https://www.globalmethane.org/partners/index.aspx> [accessed 13.05.2015]

⁸⁷ UNFCCC 'Parties and Observers' http://unfccc.int/parties_and_observers/items/2704.php [accessed 03.04.2015]

specifically target methane abatement, recovery, and use.⁸⁸ Nevertheless, this project illustrates that networked governance actors are capable of creating a context where less developed countries, at least richer ones, can come together in order to found initiatives which speak to their interests, in this case methane abatement.

The Asian Cities Climate Change Resilience Network (ACCCRN), on the other hand, presents a useful example of an initiative that takes a key less developed country concern into account, because it focuses solely on adaptation.⁸⁹ The ACCCRN aims to strengthen the capacity of over 50 rapidly urbanizing cities in Bangladesh, India, Indonesia, the Philippines, Thailand and Vietnam to survive, adapt, and transform in the face of climate-related stress and shocks.⁹⁰ The ACCCRN focuses on helping individuals and organizations build climate change resilience for poor and vulnerable people by fostering partnerships and collaboration. The initiative aims to build a larger coalition to drive the capacity and action needed for climate change resilience in the region.⁹¹ Bangladesh, India, Indonesia, the Philippines, Thailand and Vietnam are all considered less developed countries under the definition of this thesis, but none of these countries is part of the group of Least Developed Countries, the most vulnerable to climate change effects. Nevertheless, the ACCCRN provides an example of the role networked climate change governance actors can play in creating a context where the concerns of less developed countries are taken into account, because this initiative is solely concerned with adaptation.

Overall, the discussion and illustrative examples above indicate that networked climate change governance processes are not entirely inclusive or representative of less developed country interests, particularly of Least Developed Countries. Nevertheless, networked governance actors can be said to have the capacity for creating a context where the interests of less developed countries can be taken into account, either through participation, founding of projects, or through projects which pursue these interests. Therefore, although networked governance actors undoubtedly face a hindrance of excluding less developed countries, there is capacity for inclusion of these countries and their interests. This is not to say that these countries will definitely be included in future, or

⁸⁸ Global Methane Initiative 'About the Initiative' <https://www.globalmethane.org/partners/index.aspx> [accessed 13.05.2015]

⁸⁹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 117

⁹⁰ Asian Cities Climate Change Resilience Network, 'About Us' <http://accrn.net/about-accrn> [accessed 13.05.2015]

⁹¹ *Ibid.*

even that that is *likely*, but rather that the capacity for this exists. In addition, the examples above illustrate that some projects are initiated by less developed countries, indicating that these countries are acting on their concerns, and some projects promise to address adaptation, a less developed country concern. In terms of climate justice, this tentatively places networked governance actors on the third rung of the four point hierarchy:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

Although it cannot be said that all actors within networked climate change governance have promised to begin working on enabling the first part of Demand Two in the future, because this is impossible to claim due to vast amount of projects in existence, the discussion has served to tentatively illustrate the potential for policy which enables the first part of Demand Two. The potential for policy lies in fact that networked climate change governance actors have the capacity to create a context within which policy for including less developed countries' concerns can be created. The Global Methane Initiative, which includes several less developed country founding members, and the ACCCRN, which focuses on adaptation, are indicative of this potential. Unfortunately, the discussion above also reveals that the wider trend within networked climate change governance is exclusion of less developed countries. This indicates that it cannot be said that there are policies in place which consistently enable the first part of Demand Two. For this reason, networked climate change governance actors remain on the third rung of the hierarchy in terms of the first part of Demand Two.

The second part of Demand Two states that the distribution of benefits and burdens in global climate change action should be based in the PATP⁹² model. The previous chapter illustrated that the actors of the UNFCCC fail to enable this second part of Demand Two beyond making promises to do so, for two main reasons. First, wealthy and high emitting countries such as the US, Canada, Japan, and Russia have refused to participate in the

⁹² Polluter's Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

second commitment period of the Kyoto Protocol. Secondly, the Kyoto Protocol does not hold richer less developed countries with high emissions, such as China, India and Brazil, to account for lowering emissions. The fact that the Kyoto Protocol does not hold some of the highest emitting and wealthiest states to account for reducing emissions and making financial contributions is not consistent with the PATP model. Nevertheless, Chapter Seven illustrated that new targets are currently being negotiated under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) in the run up to the 21st Conference of the Parties at Paris. Although these discussions, at times, indicate room for optimism, it is not yet clear whether these targets will represent a significant departure from the Kyoto Protocol. For this reason, Chapter Seven argued that the actors under the UNFCCC do not fully enable the second part of Demand Two. It is therefore important to evaluate what role networked climate change governance actors can play in creating a context within which countries can be held to account in line with the PATP model, thereby enabling the second part of Demand Two.

It is difficult to claim, with any certainty, that networked climate change governance actors create a context within which states are held to account according to the PATP model. This is for two reasons. The first is that states are not the primary actors within networked climate change governance, and the second is that even when states are the primary actors within a project, they are not often held to account more than voluntarily. In Bulkeley et al.'s sample of projects only 15% were initiated by national government actors.⁹³ In addition, in their sample of public projects, only 22% had national government actors, compared to 38% that had regional actors, 31% that had local actors, and 9% that had multiple public actors.⁹⁴ This is indicative of the low number of state actors within networked climate change governance. This low number is problematic in terms of enabling the PATP, because if states do not participate, they cannot be held to account.

Furthermore, even when states do participate in initiatives, it is rare these actors be held to account more than voluntarily. There is a trend of not holding participating actors to account more than voluntarily within networked climate change governance processes. For example, in Bulkeley et al.'s analysis, they discovered that capacity building (88%) and information sharing (93%) are the most common functions among the initiatives in their

⁹³ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 26

⁹⁴ *Ibid.*, p. 82

database, and there are a significant proportion of initiatives which undertake direct forms of action (60%) and involve setting some form of target for their constituents (60%).⁹⁵ However, initiatives which set mandatory rules (23%) are relatively rare.⁹⁶ If states are not held to account more than voluntarily, then it is questionable whether it can be said that the PATP model of responsibility is being enabled by networked climate change governance actors. Nevertheless, a majority of projects within Bulkeley et al.'s sample have some form of 'soft' or 'self' regulation.⁹⁷ This indicates that networked governance initiatives have ways to bind participants and hold one another to account. These strategies include: maintaining a registry of members (77%), asking participants to sign a Memorandum of Understanding (35%), chairing membership fee (37%), or requiring compulsory action (30%).⁹⁸ Bulkeley et al. explain that 90% of initiatives undertake some form of function that goes beyond information sharing or capacity building to include certification or target setting, which indicates actors are being held to account, even if this is through soft, voluntary measures.⁹⁹ Therefore, although it cannot be said that actors are held to account by a legal treaty such as the Kyoto Protocol, networked climate change governance actors have created a context within which actors can be held to account through soft regulation.

Two examples of networked climate change governance initiatives will now be examined in order to illustrate how soft regulation works in practice. These two examples, the Carbon Sequestration Leadership Forum, and the Asia Pacific Partnership on Clean Development and Climate, are both public initiatives which hold states to account for climate change action. Although these states are only held to account voluntarily, these examples illustrate the fact that networked governance actors have created a context within which rich and high emitting states can act on their responsibilities, and hold one another to account, albeit on a voluntary basis.

The Carbon Sequestration Leadership Forum (CSLF) is focused on the development of improved cost-effective technologies for the separation and capture of carbon dioxide for its transport and long-term safe storage.¹⁰⁰ The mission of the CSLF is to facilitate the

⁹⁵ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 27

⁹⁶ *Ibid.*, p. 28

⁹⁷ *Ibid.*

⁹⁸ *Ibid.*, p. 34

⁹⁹ *Ibid.*, p. 35

¹⁰⁰ Carbon Sequestration Leadership Forum, 'About Us' <http://www.csforum.org/aboutus/index.html> [accessed 13.05.2015]

development and deployment of such technologies via collaborative efforts that address key technical, economic, and environmental obstacles.¹⁰¹ Membership is open to national governmental entities that are significant producers or users of fossil fuels and that have a commitment to invest resources in research, development and demonstration activities in carbon capture and storage technologies.¹⁰² This indicates that the CSLF specifically targets high emitting and/or wealthy countries, which can contribute to funding new technologies and are responsible to act on climate change under the PATP. The CSLF and the technologies it seeks to develop are identified by international bodies as pivotal in dealing with GHGs and their ultimate stabilization.¹⁰³ This indicates that members under the CSLF are contributing financially in order to ultimately lower global emissions. Importantly, this project includes members from less developed countries which are widely regarded as significant in terms of their contributions to GHG emissions and as critical actors in the international climate change regime.¹⁰⁴ These are richer less developed countries who fall under the BRICS category: Brazil, India, China, South Africa, as well as Russia and Mexico, which are sometimes included in the BRICS category (BRICSAM). The CSLF also includes the US, which never ratified the Kyoto Protocol, as well as Canada, Japan, Russia, and New Zealand, countries which have refused to participate in the second round of the Kyoto Protocol.¹⁰⁵ In this way, CSLF is including actors which not currently held to account under the Kyoto Protocol.

The PATP calls for high emitting and/or rich countries to contribute to the climate change solution, by lowering emissions and/or financing projects which seek to address the climate change problem. The CSLF is in line with these demands, because it allows high emitting and wealthy states to act on climate change, according to their responsibilities under the PATP model. Of course, these actors are not held to account on more than a voluntary basis, as is typical within networked climate change governance. Although the CSLF has a Charter, this is 'does not create any legally binding obligations between or among its Members.'¹⁰⁶ Furthermore, the Charter of the CSLF specifies that 'a Member may withdraw

¹⁰¹ Carbon Sequestration Leadership Forum, 'About Us' <http://www.csforum.org/aboutus/index.html> [accessed 13.05.2015]

¹⁰² *Ibid.*

¹⁰³ *Ibid.*

¹⁰⁴ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 32

¹⁰⁵ Carbon Sequestration Leadership Forum, 'About Us' <http://www.csforum.org/aboutus/index.html> [accessed 13.05.2015]

¹⁰⁶ Carbon Sequestration Leadership Forum, 'Charter' <http://www.csforum.org/aboutus/index.html> [accessed 13.05.2015]

from membership in the CSLF by giving 90 days advance written notice to the Secretariat,' indicating membership is not legally binding.¹⁰⁷ Nevertheless, the CSLF provides a context within which these actors can act on their responsibilities, and hold one another to account for action on climate change, even if this is on a voluntary basis. This is indicative of the fact that networked climate change governance actors are capable of creating a context within which rich and/or high emitting countries can act on, and be held accountable for, their responsibilities under the PATP model, albeit voluntarily.

The Asia-Pacific Partnership on Climate (APP) is another example of a networked climate change initiative which allows high emitting/rich countries to act on their responsibilities specified under the PATP model. Although the APP concluded its joint work 2011, the initiative still has ongoing projects, and is a frequently used example within the climate change governance literature – it is included in Hoffman's,¹⁰⁸ Bulkeley et al.'s,¹⁰⁹ and Abbott's¹¹⁰ research. It is therefore worth briefly discussing this example, because this will allow the current chapter to speak to existing literature. The APP accounted for 48% of the world's GHG emissions, 48% of global energy production, 49% of global GDP, and 45% of the global population, making it a significant networked climate change governance actor, which is perhaps why it is commonly discussed.¹¹¹ Like the CSLF above, the APP included members from less developed countries which are widely regarded as significant in terms of their contributions to GHG emissions and as critical actors in the international climate change regime, as well as members who refused to sign the Kyoto Protocol.¹¹² The APP was a partnership between the governments of Australia, Canada, China, India, Japan, South Korea and the United States, and ran from 2005-2011. Besides Australia, none of the APP member states are currently held to account for lowering emissions or financial contributions under the Kyoto Protocol. This is important, because it illustrates that the APP created a context under which rich/high emitting countries not held to account under the Kyoto Protocol can act on their responsibilities.

¹⁰⁷ Carbon Sequestration Leadership Forum, 'Charter' <http://www.cslforum.org/aboutus/index.html> [accessed 13.05.2015]

¹⁰⁸ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 8

¹⁰⁹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 32

¹¹⁰ Abbott, K. W., 'The Transnational Regime Complex for Climate Change' in *Environment & Planning C: Government & Policy* 30(4) (2012) p. 575

¹¹¹ Bäckstrand, K., 'Accountability of Networked Climate Governance: The Rise of Transnational Climate Partnerships' in *Global Environmental Politics* 8 (2008), p. 92

¹¹² Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 32

The APP aimed 'to promote and create an enabling environment for the development, diffusion, deployment and transfer of existing and emerging cost-effective, cleaner technologies and practices, through concrete and substantial cooperation.'¹¹³ This indicates that the APP was concerned with investing in technologies which lower GHG emissions, similarly to the CSLF, and members of the APP contributed financially in order to ultimately lower global emissions. Over the course of its existence the member states of the APP were involved in hundreds of projects to fulfil this aim. For example, the APP oversaw the construction of high performance buildings in China, which aimed to reduce energy use and emissions.¹¹⁴ One of these buildings was the Olympic Village Micro-Energy Building, which housed 17,000 athletes during the 2008 Olympics. Through projects such as these, the APP allowed actors who are responsible under the PATP model to act on these responsibilities. However, members of the APP were not held to account beyond their voluntary commitment. According to the APP charter, the member states were operating under a 'voluntary, non-legally binding framework,' and partners were allowed to terminate their membership 'upon written notice 90 days prior to the anticipated termination.'¹¹⁵ In addition, although the APP enabled states to act on their responsibilities, the APP reflected a preference for an emphasis on reducing emissions intensity rather than cuts in carbon per se.¹¹⁶ In addition, the APP had a strong emphasis on clean coal technologies, which reflects the energy sector profiles of some of the countries involved.¹¹⁷ This indicates that the APP presented a 'businesses as usual' approach, rather than a radical departure from existing energy production. This is a wider problem within networked climate change governance, and will be further discussed in the second part of this chapter.

For now, the chapter has aimed to demonstrate in the discussion above, as well as through the use of two illustrative examples, that networked climate change governance actors have the capacity to create a context within which rich/high emitting states can act on their responsibilities. Although there exists the hindrance of not holding these countries to account more than voluntarily, the discussion above served to illustrate that actors within

¹¹³ Asia-Pacific Partnership on Clean Development and Climate, 'About the APP'

<http://www.asiapacificpartnership.org/english/about.aspx> [accessed 29.12.2014]

¹¹⁴ Asia-Pacific Partnership on Clean Development and Climate, 'APP Project Roster'

http://www.asiapacificpartnership.org/english/project_roster.aspx [accessed 29.12.2014]

¹¹⁵ Asia-Pacific Partnership on Clean Development and Climate, 'Charter'

<http://www.asiapacificpartnership.org/english/resources.aspx> [accessed 13.05.2015]

¹¹⁶ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p.

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¹¹⁷ *Ibid.*

networked climate change governance are capable of creating a context which can accommodate the PATP model of responsibility. This does not mean that the PATP model will be realized through networked climate change governance processes, or that this is *likely*, but rather that this is not impossible. In addition, the two examples above served to illustrate that there are initiatives that involve rich and high emitting states acting to reduce emissions and fund climate friendly technologies, thereby setting a context where the PATP model of responsibility can be acted on. For this reason, the actors involved in networked climate change governance can tentatively be said to reside on rung three of the four point justice hierarchy in terms of enabling part two of Demand Two:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

Although it cannot be said that all actors within networked climate change governance have promised to begin working on enabling the second part of Demand Two in the future, because this is impossible to claim due to vast amount of projects in existence, the discussion has served to tentatively illustrate the potential for policy which enables the second part of Demand Two. This potential for policy lies in fact that there is a context under which the PATP could be inscribed into policy. The Carbon Sequestration Leadership Forum and the Asia-Pacific Partnership on Climate, both of whom enable states to act on their responsibilities, are indicative of this potential. Nevertheless, it cannot be said that networked climate change governance has policies in place which consistently enable the PATP, because in the rare cases where states make up actors within these processes of governance, they are not held to account more than voluntarily. For this reason, networked climate change governance actors remain on the third rung of the hierarchy in terms of the second part of Demand Two.

Demand Three – Capable Actors

Demand Three states that capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause, in line with their respective capabilities. Chapter Seven made that case that the Kyoto Protocol does not represent a set of policies which enable Demand Three of justice, because it does not create a context under which all capable actors are held to account. The Kyoto Protocol holds less than forty states to account for lowering emissions,

and less than thirty to account for financial contributions. This not only severely limits the number of states which are held to account, but also to the number of individuals, firms, sub-state entities, international institutions held to account. However, Chapter Seven noted that the list of states which are held responsible is currently being negotiated under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) in the run up to the 21st Conference of the Parties at Paris. Although these discussions, at times, indicate room for optimism, it is not yet clear whether they will lead to a significant departure from the Kyoto Protocol. For this reason, Chapter Seven argued that the actors under the UNFCCC do not enable Demand Three. Therefore, when assessing to what extent actors in networked climate change governance enable Demand Three, it will be important ascertain whether these actors create a context within which individuals, firms, sub-state entities, international institutions, and states can be held to account for their responsibilities for lowering emissions and/or contributing financially to the climate change cause.

Recent research on the networked climate change governance is indicative of the capacity of actors involved in these processes to create a context within which actors can act on their responsibilities. For example, Bulkeley et al.'s findings indicate that it is becoming increasingly common for subnational governments, non-governmental organizations, businesses and individuals to take responsibility into their own hands and experiment with bold new approaches to the governance of climate change.¹¹⁸ Their research revealed a clear increase in participation of non-state actors.¹¹⁹ According to Bulkeley et al., networked climate change governance processes exercises authority over individuals, companies and even states and intergovernmental organizations.¹²⁰ This is indicative of the fact that networked climate change governance actors have the capacity to create a context within which individuals, firms, sub-state entities, international institutions, and states can act on their responsibilities for lowering emissions and/or contributing financially to the climate change cause.

Networked climate change governance processes provide scope and space for action which is broader than the space provided by the UNFCCC. In the UNFCCC, only particular actors (states) can directly pursue their interests in a particular way (relative to emissions

¹¹⁸ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 1

¹¹⁹ *Ibid.*, p. 68

¹²⁰ *Ibid.*, p. 3

reductions). In contrast, networked climate change governance processes have allowed multiple actors to pursue diverse approaches to combatting climate change.¹²¹ In addition, networked climate change does not face the same constraints which may face decision making at the UNFCCC: if the interest and money is there, action can be taken without having to negotiate the consent of 180 states. This is indicative of the capacity of actors within these processes to shape the context at will, and thereby include a diverse range of responsible actors. Biermann et al. have come to similar conclusions. These scholars explain that networked climate change governance processes can circumvent negotiation stalemates among countries that might have been caused by the attempt of finding universal agreement.¹²² This, in turn, may make it easier to broaden the coverage of relevant sectors.¹²³ Again, this suggests that networked climate change governance actors are able to shape the context in order to engage a wider variety of actors than the UNFCCC is able to engage. It seems that almost any actor can conceive of being a player in climate governance and seeking to influence responses to climate change.¹²⁴ This has allowed for a wide variety of actors to participate in networked climate change governance, including those which are not interested in the multilateral process.¹²⁵

The discussion above suggests that networked governance actors have the capacity to create a context within which individuals, firms, sub-state entities, international institutions, and states can act on their responsibilities under Demand Three. Indeed, it seems that this context is well underway in being created. Nevertheless, as was explained above, actors are typically not held to account more than voluntarily within networked climate change governance. Of course, voluntariness does not suggest that implementing actors will not comply with the rules of initiatives or will fail to act out the initiatives' core functions.¹²⁶ Even if an initiative is voluntary, it can still exert a degree of power over its members, in the form of 'soft' regulation, as discussed above.¹²⁷ However, it is worth stressing that

¹²¹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 165

¹²² Biermann, F. Pattberg, P. Zelli, F., and Van Asselt, H., 'The Consequences of a Fragmented Climate Governance Architecture: A Policy Appraisal' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 30

¹²³ *Ibid.*

¹²⁴ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 30

¹²⁵ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 97

¹²⁶ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 38

¹²⁷ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 57

networked climate change governance actors do not usually hold individuals, firms, sub-state entities, international institutions, and states to account more than voluntarily.

Two examples will now be used to illustrate the argument that networked climate change governance actors have the capacity to create a context within which individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, can act on lowering emissions and/or contributing financially to the climate change cause: The Verified Carbon Standard and the Regional Greenhouse Gas Initiative.

The Verified Carbon Standard (VCS) was founded by a collection of business and environmental leaders who saw a need for greater quality assurance in voluntary carbon markets.¹²⁸ The aim of the VCS is to implement a GHG reduction program that delivers ‘massive emission reductions across the world.’¹²⁹ The VCS is one of many similar carbon offset initiatives, but has captured the largest share of this market: it is the world’s most widely used voluntary GHG reduction program.¹³⁰ The VCS does not buy and sell carbon credits, but rather facilitates this exchange by ‘eliminating the need for the purchaser to evaluate the merits of many different projects.’¹³¹ In other words, the VCS provides a common standard in the carbon trading market which enables corporations to buy and sell emissions and display their emission lowering efforts. Carbon offsetting occurs when a buyer invests in a project or mitigation measures which will result in fewer GHG emissions than would have occurred in the absence of that investment.¹³² Through this investment, the buyer is purchasing ‘carbon credits’ that may potentially be sold on to another buyer or cancelled so that they can no longer be used.¹³³

To establish some degree of structure and stability in the voluntary carbon offsetting market, a number of standards, included the VCS, were established to provide rules that assure buyers that their purchased credits are genuinely reducing GHG emissions.¹³⁴ The role of the VCS is therefore to facilitate carbon trading, rather than to hold corporations to account for responsibilities. Nevertheless, the VCS, by providing a trusted standard of carbon trading, enables corporations to act on the responsibilities outlined in Demand

¹²⁸ Verified Carbon Standard, ‘Who We Are’ <http://www.v-c-s.org/who-we-are> [accessed 30.12.2014]

¹²⁹ Verified Carbon Standard, ‘Our Mission’ <http://www.v-c-s.org/who-we-are/mission-history> [accessed 30.12.2014]

¹³⁰ Verified Carbon Standard, ‘Why VCS?’ <http://www.v-c-s.org/how-it-works/why-vcs> [accessed 30.12.2014]

¹³¹ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 111

¹³² *Ibid.*, p. 110

¹³³ *Ibid.*

¹³⁴ *Ibid.*

Three, by allowing these actors buy and sell emissions and display their emission lowering efforts. It is important to note that the VCS promises ‘massive emission reductions across the world.’¹³⁵ This indicates that the VCS seeks to assist corporations in lowering their emissions. This enables Demand three because the VCS creates a context within which corporations are able to act on their responsibilities to lower emissions and contribute financially to the climate change cause. According to the VCS, over one thousand registered projects have collectively removed more than 130 million tons of emissions from the atmosphere, indicating that corporations are acting on their responsibilities on a large scale.¹³⁶

The Regional Greenhouse Gas Initiative (RGGI) is another example which illustrates that networked governance actors have created a context within which actors beyond the state can act on their responsibilities. The RGGI is comprised of ten states in the Northeast and Mid-Atlantic regions of the US: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. These federal states aim to cap and reduce GHG emissions from the power sector.¹³⁷ In order to achieve this, federal states sell their allowances through auctions and invest proceeds in energy efficiency, renewable energy, and other consumer benefit programs.¹³⁸ The RGGI is therefore creating a context within which sub-state entities, namely federal US states, can act on their climate change responsibilities by reducing GHG emissions and investing in climate friendly technology. This is especially important considering that the US is currently not held to account for emissions reductions or financial contributions under the Kyoto Protocol. The federal states participating in the RGGI are therefore sub-state actors which have so far not been held to account legally under the UNFCCC. Although the RGGI is a voluntary initiative, it is illustrative of the fact that networked climate change governance creates a context within which sub-state actors can act on their responsibilities under Demand Three, thereby enabling this demand.

It should be noted that the six illustrative examples outlined under the heading of Demand One and Two also illustrate the fact that networked climate change governance actors are creating a context within which capable actors, including individuals, firms, sub-state

¹³⁵ Verified Carbon Standard, ‘Our Mission’ <http://www.v-c-s.org/who-we-are/mission-history> [accessed 30.12.2014]

¹³⁶ Verified Carbon Standard, ‘Why VCS?’ <http://www.v-c-s.org/how-it-works/why-vcs> [accessed 30.12.2014]

¹³⁷ Regional Greenhouse Gas Initiative, ‘Welcome’ <http://www.rggi.org/> [accessed 14.05.2015]

¹³⁸ *Ibid.*

entities, international institutions, and states can act on their responsibilities for lowering emissions and/or contributing financially to the climate change cause. The C40 involves cities attempting to lower emissions, the Climate Group involves cities and corporations which are attempting to spread clean technology, the Global Methane Initiative involves states attempting to capture a specific GHG, the Carbon Sequestration Leadership Forum is a group of national governments attempting to lower GHGs by capturing carbon, the Asian Cities Climate Change Group involves cities which are aiming to enable adaptation, and finally the Asia Pacific Partnership on Clean Development and Climate was a group of states who attempted to facilitate technological innovation. From these examples, and the discussion above, it can be argued that networked climate change governance actors are capable of enabling Demand Three, by creating a context within which this is possible. It is worth reiterating that actors are not held to account in a legally binding manner, but rather voluntarily. Nevertheless, networked climate change governance actors are shaping how individuals, communities, cities, countries, provinces, regions, corporations and nation-states respond to climate change.¹³⁹ The examples discussed served to illustrate this, by outlining the activities of initiatives that are allowing these actors to act on their responsibilities. Therefore, actors in networked climate change governance can tentatively be said to reside on the third rung of the hierarchy in terms of enabling Demand Three:

3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

Although it cannot be said that all actors within networked climate change governance have promised to begin working on enabling Demand Three in the future, because this is impossible to claim due to vast amount of projects in existence, the discussion has served to tentatively illustrate the potential for policy which enables Demand Three. The potential for policy lies in fact that there is a context under which the responsibility of individuals, firms, sub-state entities, international institutions, and states to act on climate change could be inscribed into policy. The Verified Carbon Standard, which allows corporations to act on their responsibilities, and the Regional Greenhouse Gas Initiative, which allows federal US states to act on their responsibilities, are indicative of this potential. In addition, The C40, the Climate Group, the Global Methane Initiative, the Carbon Sequestration Leadership Forum, the Asian Cities Climate Change Group and the Asia Pacific Partnership

¹³⁹ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 8

on Clean Development and Climate which all allow various state and non-state actors to act on their climate responsibilities outlined in Demand Three, are also indicative of the potential for policy. Nevertheless, it cannot be said that networked climate change governance has policies in place which consistently enable Demand Three, because actors are not held to account more than voluntarily. For this reason, networked climate change governance actors remain on the third rung of the hierarchy in terms of Demand Three.

On a final note, it is worth stressing that participation of these actors should not necessarily be taken as a sign that these actors see themselves as responsible. In fact, there is concern within networked climate change governance research that the pervasiveness of market mechanisms and the lack of innovation beyond 'business as usual' calls into question whether actors are being held to account for their responsibilities or rather pursuing their own interests and agendas. The bulk of networked responses to climate change are market oriented, and the center of gravity of the global response is bound up with market mechanisms, including credit and allowance markets.¹⁴⁰ This suggests that collectively, networked climate change governance projects are attempting to shift the focus of the discussion about the response to climate change from the costs of reducing emissions to the (economic) benefits of reducing emissions.¹⁴¹ This reinforces the notion that the transition to a carbon neutral world should and will take place through market-oriented means rather than through radical rethinking of social and economic structures.¹⁴²

This focus on the market is concerning, because it is not clear how effective the incremental changes that arise from market mechanisms can be.¹⁴³ It could be argued that market mechanisms represent 'business as usual' rather than radical change which may be necessary to adequately respond to climate change. Policies that are relatively easy to implement (such as offsets) may be exactly the ones unlikely to make much difference.¹⁴⁴ Perhaps more troublingly, market mechanisms have been criticized for exacerbating the status quo. The emerging pattern implies that the rich buy credits from the poor, not vice versa, entrenching existing inequalities.¹⁴⁵ This further adds to the idea that market

¹⁴⁰ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response After Kyoto* (Oxford: Oxford University Press, 2011), p. 149

¹⁴¹ *Ibid.*, p. 40

¹⁴² *Ibid.*

¹⁴³ *Ibid.*

¹⁴⁴ Stevenson, H. and Dryzek, J. S., *Democratizing Global Climate Governance* (Cambridge: Cambridge University Press, 2014), p. 4

¹⁴⁵ Hayward, T., 'Human Rights Versus Emission Rights: Climate Justice and the Equitable Distribution of Ecological Space' in *Ethics and International Affairs*, 21 (2007), p. 439

mechanisms replicate ‘business as usual’ rather than reflecting genuine structural change, which is necessary to combat climate change. Actors in networked climate change governance will need to address this problem if climate change action is to involve more than a very slight change in behavior which perpetuates existing inequalities and is does not present a departure from ‘business as usual.’ The pervasive nature of the market and ‘business as usual’ present hindrances because they call into question whether actors are being held to account for their responsibilities or rather pursuing their own interests and agendas. This will be further discussed in the second section of the chapter, after a brief summary of findings.

Summary of Findings

The above exploratory assessment served to illustrate how the climate justice position in this thesis can be applied to assess to what extent actors in networked climate change governance meet their responsibilities to enable a condition of justice in the case of climate change. Although the findings above are preliminary, the climate justice focused meta-analysis above has revealed the importance of networked climate change governance in terms of creating a context within which the three demands of justice defended in this thesis can be met. Each of the three demands was argued to be enabled to the third rung of the hierarchy, as is illustrated in the table below.

Demand	Extent to Which the Demand is Enabled by Actors involved in networked Climate Change Governance
One: The right to health ¹⁴⁶ of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected.	3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.
Two: The concerns of less developed countries must be properly considered in climate change action. The distribution of benefits and burdens in global climate change action should be based in the PATP ¹⁴⁷ model.	3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

¹⁴⁶ Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

¹⁴⁷ Polluter’s Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it

Demand	Extent to Which the Demand is Enabled by Actors involved in networked Climate Change Governance
Three: Capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause, in line with their respective capabilities.	3. Actors in the institution have promised to begin working on enabling the demand of justice in the future – no policy has been adopted, but there is the potential for the creation of policy in order to consistently work towards enabling the demand of justice.

The assessment above has tentatively revealed actors involved in networked climate change governance processes have the capacity to create a context within which the demands of justice defended in this thesis can be met. It was illustrated that networked climate change governance actors have the capacity to lower emissions, to include less developed countries, and to hold individuals, firms, sub-state entities, international institutions, and states to account for their responsibilities to act on climate change. The chapter used examples to illustrate this capacity, and furthermore to show that there are initiatives which have put policies which enable the demands of justice into place. These findings present a significant positive trajectory in terms of enabling a condition of climate justice. Nevertheless, this does not indicate that it is *likely* that networked climate change governance actors will enable a condition of climate justice, but rather that it is not impossible. In other words, the assessment above has shown that that there is room, or scope, for the three demands to be met by networked climate change governance actors. For this reason, the chapter’s findings indicate that it is important and worthwhile for climate justice scholars to research networked climate change governance processes. This will be further discussed in the second part of this chapter.

Nevertheless, it must be stressed that although networked climate change governance processes exhibit positive trajectories, namely a) there are networked governance

does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

initiatives which have goals in line with the three demands of climate justice, b) there is capacity for emissions reductions, c) there is capacity for less developed country inclusion, and d) there is capacity for responsible actors to be held to account, hindrances remain in place. The fact that actors involved in networked climate change justice fail to fully enable any of the three demands represents a key hindrance which must be overcome in order to meet a condition of justice in the case of climate change. The actors involved in networked climate change governance must do more to live up to their responsibility for enabling a condition of justice. In addition, the chapter pointed to the following hindrances in the discussion above: a) it is unclear whether networked climate change actors are effective at reducing emissions levels, b) there is a focus on mitigation over adaptation, c) there is a marginalization of less developed countries, especially the very poorest, d) actors are not held to account more than voluntarily, e) there is a focus on market mechanisms, and finally, e) networked climate change governance presents a 'business as usual' approach rather than a radical departure from current practice. This leaves open the question of what will happen in the future, to which the chapter now turns.

Networked Climate Change Governance: Looking to the Future

This second part of the chapter concerns the future capacity of networked climate change governance actors to enable a condition of justice. It should be noted that capacity and probability are two different matters. As was discussed in Chapter Six, capacity implies responsibility, even if the probability of an action is low. In this sense, it is not morally relevant whether it is *likely* that actors involved in networked climate change governance will enable a condition of justice in the future, because these actors are morally responsible for doing so. However, it is still important to explore whether the capacity to enable climate justice will be affected in future. If the actors involved in networked climate change governance are moving towards creating a context where demands of justice can be met, then this indicates that these actors will remain capable of, and therefore morally responsible for, enabling a condition of climate justice. The discussion below will attempt to determine if this is the case. It will be put forward that there is room for cautious optimism regarding the capacity of networked climate change governance actors to enable a condition of justice in the future.

There is room for optimism because networked climate change governance processes are flexible, innovative, and have the potential to catalyze change in the response to climate change. Networked climate change processes are flexible in the sense that there is no

particular pattern to how initiatives are put together, or by whom they are put together. Bulkeley et al.'s analysis reveals that there is no proclivity for specific types of actors (non-governmental organizations, corporations, states, etc.) to engage with particular issues. At the same time, exclusive sets of interests do not cohere around particular actor types: particular types of actors may have divergent interests or diverse range of actors may share similar interests in the climate change field.¹⁴⁸ This is indicative of the fact that networked climate change governance actors have created a flexible context within which multiple actors can pursue a myriad of interests.¹⁴⁹ This flexibility is important, because this allows for networked climate change governance processes to continue to engage a variety of actors and combat climate change in a range of ways, which may prove effective in terms of emissions reductions, encourage the inclusion of less developed countries, and mean that a variety of responsible actors are held to account within these processes.

Networked climate change governance processes are not only flexible, but provide a context for innovation. Networked climate change governance actors are innovative, pushing the envelope of what is possible, actively seeking out and creating gaps in the response to climate change and attempting to fill them.¹⁵⁰ In this way, networked climate change governance initiatives promote experimentation and innovation.¹⁵¹ This innovation is important, because without numerous innovative technological and institutional efforts at multiple scales, it will not be possible to learn which combined sets of actions are the most effective in reducing the long-term threat of climate change.¹⁵² This innovation has potential to catalyze change, which may provide the momentum necessary to adequately respond to the climate change problem. Networked climate change governance actors may be able to provide a source of friction that catalyzes a demand for a broad transformation in the response to climate change.¹⁵³ Friction is created by pushing the boundaries of traditional notions of which actors are responsible for making the rules, creating an uneven set of rules actors must follow, and generating new coalitions committed to climate

¹⁴⁸ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 114

¹⁴⁹ Keohane, R. O., and Victor, D. G., 'The Regime Complex for Climate Change' in *Perspectives on Politics* 9(1) (2011), p. 20

¹⁵⁰ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 78

¹⁵¹ Abbott, K. W., 'The Transnational Regime Complex for Climate Change' in *Environment & Planning C: Government & Policy* 30(4) (2012) p. 588

¹⁵² Ostrom, E. 'A Polycentric Approach for Coping with Climate Change' *World Bank Policy Research Working Paper*, 5095 (2009), p. 4

¹⁵³ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 28

action.¹⁵⁴ Through this, networked climate change governance processes may be able to create significant momentum for the global response.¹⁵⁵ In fact, recent research suggests that the momentum within climate change governance processes is only growing.¹⁵⁶ For this reason, it is possible to argue that networked climate change governance actors, by providing a context which is innovative, and ultimately looks to provide momentum for altering the global response to climate change, will continue to have the capacity to enable the three demands of climate justice by creating a context under which this is possible. Recent research indicates that networked climate change governance will continue to grow and expand, and thereby continue to provide a context within which global emission levels can be lowered, less developed country actors can be included, and where a variety of actors can be held to account. For this reason, networked climate change governance should be taken as a source of optimism at a time when the prospects for a just global response to climate change remain uncertain.

Nevertheless, there is also room for caution. This is in part because there is a pervasive 'business as usual' approach within networked climate change governance, which can especially be seen in the ubiquitous marketization of the climate change problem. Although networked climate change governance processes are flexible and innovative the actors within these processes have come to understand and act on climate change in a limited number of ways. The framing of the climate change issue is overall seen as a business opportunity rather than a critique of capitalism and growth within networked climate change governance.¹⁵⁷ For this reason, some critical authors suggest that networked climate change governance initiatives simply help reproduce the norms and rationalities and further the interests of dominant political economic forces such as global finance.¹⁵⁸ Furthermore, some critics claim that networked climate change governance actors are merely pursuing their own interests, rather than fundamentally changing the response to climate change.¹⁵⁹ This is a compelling argument, especially considering that there were no broad based anti-consumption movements or anti-consumerism movements and campaigns within Bulkeley et al.'s sample.¹⁶⁰ Also absent were campaigns that demonize

¹⁵⁴ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 28

¹⁵⁵ *Ibid.*, p. 29

¹⁵⁶ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 110

¹⁵⁷ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 115

¹⁵⁸ *Ibid.*, p. 59

¹⁵⁹ *Ibid.*, p. p. 165

¹⁶⁰ *Ibid.*, p. 101

and seek to eliminate coal use, punish those who invest in coal burning facilities or reward those that significantly reduce beef or meat consumption.¹⁶¹ Overall, it is clear from Bulkeley et al.'s findings that many of the actors that wield financial and political power in networked climate change governance initiatives have very little interest in fundamentally changing the global response to climate change.

This is problematic, because a condition of climate justice cannot be reached under the scope of current networked climate change governance action. None of the three demands of justice are currently being fully enabled by networked climate change governance actors. In addition, Climate Change Action tracker estimates that current trends in governance will only reduce global rises in temperature 2.9 to 5.2°C by 2100, which is not sufficient to protect the right to health.¹⁶² In addition, if dominant interests continue to be perpetuated, this leaves open the question of whether the concerns of less developed countries will have their interests heard, and whether state and non-state actors will be held to account for their climate justice responsibilities beyond voluntarily. Current practice is therefore far from what is required in order to meet a condition of climate justice. In addition, the assessment in Chapter Seven and the current chapter has revealed that networked and multilateral governance actors face similar hindrances, specifically: a) lack of effectiveness b) focus on mitigation over adaptation, and c) marginalization of less developed countries, especially the very poorest. This suggests that there is some continuity in global climate change governance, even though the processes of multilateral and networked climate change are quite different in their scope and ambition. For this reason, it is not possible to claim that multilateral governance has failed, and networked governance presents improvement and innovation: instead, these processes face similar problems. It is also clear that networked climate change governance is not an alternative to the UNFCCC – the landscape of networked climate change governance is fraught with its own contradictions, pitfalls and injustices.¹⁶³

However, it should be noted that there has been an emergence of critical networked climate change governance initiatives which represent a shift from 'business as usual' and provide further scope for optimism. These initiatives adopt a strong focus on green

¹⁶¹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 101

¹⁶² Climate Action Tracker, 'Effect of Current Pledges and Policies on Global Temperature' <http://climateactiontracker.org/global.html> [accessed 15.05.2015]

¹⁶³ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 185

ideology, social justice and the moral imperative of climate change.¹⁶⁴ Two examples of this type of initiative are Carbon Trade Watch and Transition Towns. Carbon Trade Watch emerged as a critical non-governmental organization attempting to undermine the legitimacy of carbon markets as a credible response to climate change. The initiative works to expose the various political and environmental problems produced by such markets both in the intergovernmental and networked forms.¹⁶⁵ Carbon Trade Watch exists directly to govern, via resistance politics, the activities of the carbon market certification organizations, challenging their claims of offering guilt free offsets through carbon emissions reductions or development benefits.¹⁶⁶ Interestingly, one of the issue areas Carbon Trade Watch concerns itself with is climate justice.¹⁶⁷ This suggests that there are initiatives that are actively seeking to enable a just response to climate change by creating a context where this is possible. Transition Towns are another example of a counter-status-quo initiative. The Transition Town movement 'explores and develops ways we can change from energy-hungry ways of living that are utterly dependent on oil and other fossil fuels, to ways of living that are significantly less so.'¹⁶⁸ The Transition Town Movement calls for a fundamental shift in patterns of transportation, energy use, food production and personal lifestyles, attempting to address some of the root causes of climate change rather than tinker at the margins.¹⁶⁹ This is a critical approach, which does not simply perpetuate the status quo.

The two examples above serve to illustrate that networked climate change governance is not as one sided as critics suggest. Interestingly, at the most recent Conference of the Parties, COP20 in Lima, the language used by networked climate change governance actors, and particularly among less developed country actors, is shifting towards a discussion of climate equity, or more specifically an 'equity reference framework' for determining the fair share of mitigation and financial contributions.¹⁷⁰ This tentatively suggests a change in dialog away from market mechanisms and towards notions of climate justice, which is

¹⁶⁴ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 130

¹⁶⁵ *Ibid.*, p. 94

¹⁶⁶ *Ibid.*, p. 130

¹⁶⁷ Carbon Trade Watch, 'Climate Justice' <http://www.carbontradewatch.org/issues/climate-justice.html> [accessed 15.05.2015]

¹⁶⁸ Transition Town Totnes, 'What is Transition?' <http://www.transitiontowntotnes.org/about/what-is-transition/> [accessed 15.05.2015]

¹⁶⁹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 169

¹⁷⁰ Earth Negotiations Bulletin, 'Summary of the Lima Climate Change Conference' <http://www.iisd.ca/download/pdf/enb12619e.pdf> [accessed 10.02.15], p. 37

promising in terms of the future capacity of networked governance actors to enable a condition of justice.

Overall, the discussion above has illustrated that networked climate change governance processes present a context where there is scope for continued action, innovation, and the potential for change. At the same time, these processes present a business as usual approach, with few exceptions. For this reason, it is difficult to argue with any certainty that networked climate change governance actors will enable a condition of climate justice in the future. All that can be said is that the assessment above has tentatively indicated that actors have the capacity to enable a condition of climate justice. Furthermore, the discussion in this second part of the chapter revealed that it appears that actors within networked climate change governance will continue to expand the remit of the climate change response, although to what degree this will move away from market mechanisms and business as usual is left to be seen. It is therefore not clear whether networked climate change governance actors will present enough of a shift in behavior to fully enable the three demands of climate justice defended in this thesis. Nevertheless, it is clear that it will remain important for climate justice scholars to study networked climate change governance processes. As Bulkeley et al. put it 'all individuals concerned about climate change – academics, activists, citizens and policymakers – should be interested in how networked climate change governance works and how it might contribute to efforts to stave off the consequences of climate change.'¹⁷¹

Conclusion

This chapter aimed to tentatively illustrate what the application of the climate justice position developed in this thesis can reveal about networked climate change governance practice. The assessment in this chapter should be considered as exploratory. The chapter does not purport to make definitive claims about the practice of networked climate change governance actors. Rather, the chapter aimed to illustrate how the climate justice framework developed in Part II of this thesis can be used to assess current practice. This has the wider purpose of bridging the gap between climate justice literature and climate change governance research, as was explained in the Introduction of the thesis.

The assessment in this chapter has tentatively revealed that networked climate change governance actors have the capacity to enable a condition of justice in the case of climate

¹⁷¹ Bulkeley et al. *Transnational Climate Change Governance* (Cambridge: Cambridge University Press, 2015), p. 3

change by creating a context under which this is possible. By taking each demand in turn, and using existing research on networked climate change governance as well as illustrative examples, the chapter was able to make the case that actors within these processes have the capacity to enable all three demands of justice. It was not argued that this is guaranteed, or even *likely*, but the assessment in this chapter has nevertheless revealed that it is possible that the demands of justice set out in the thesis may be met with the enablement of actors involved in networked climate change governance. The chapter also discussed the future of networked climate change governance. It was put forward that there is room for cautious optimism regarding the capacity of networked climate change governance actors to enable a condition of justice in the future. Although networked climate change governance, as a whole, presents a context where there is scope for continued action, innovation, and the potential for change, networked climate change governance actors mostly seem to follow a 'business as usual' approach. In other words, these actors do not stray far from what is currently being pursued under the UNFCCC, and in fact face many of the same problems as actors under multilateral governance. For this reason, it is not possible to claim that networked climate change governance processes will enable a condition of justice in the future. Nevertheless, the capacity to do so exists, and there are some promising developments, such a shift in dialog and the emergence of critical networked climate change governance initiatives which represent a shift from 'business as usual.' The chapter therefore concludes that it will remain important for climate justice scholars to research networked climate change governance.

The thesis has now completed Parts I, II, and II, and turns to the Chapter Nine, which will outline the main findings of the thesis, and furthermore discuss how the normative assessment conducted in this thesis can be used to underwrite future thinking about the global response to climate change.

Chapter Nine – Conclusion

The thesis has now completed Parts I, II, and III. This final, concluding chapter will briefly discuss the main findings of the thesis and outline the limitations of the research. Following this, the chapter will turn to a discussion of what the main findings of the thesis imply for future research directions. The thesis aimed to explore why exactly global climate change action should be considered inadequate, and what normative principles must underwrite a more just global response to climate change. Furthermore, the thesis aimed to illustrate that climate justice theorists have the potential to provide normative insights into current practice. It is the purpose of this final chapter to discuss how the normative assessment conducted in this thesis can be used to underwrite future thinking about a more just global response to climate change. The discussion of future research will focus on continuing to bridge the gap between political theorists who study climate justice and scholars who focus on climate change governance. The thesis has attempted to illustrate that these two fields can be bridged by using principles of climate justice to evaluate current climate change governance practice. In this sense, the research conducted in this thesis should be seen as a starting point for a discussion between the fields of climate justice and climate change governance, and this final chapter aims to point to how this discussion can be continued in future. As Steven Vanderheiden explains, this may narrow the gap between justice in theory and practice by illustrating that these fields have something to learn from one other.¹ In addition, the continued bridging of these two fields will hopefully contribute to bringing about a more just global response to climate change.

Main Findings of the Thesis

In order to normatively assess the climate change problem from a global justice perspective, and illustrate what this perspective can reveal about the current response to climate change, the thesis was split into three parts: Part I, 'Defining the Climate Change Problem,' Part II, 'Developing a Global Justice and Climate Change Position', and Part III, 'Assessing Current Institutional Practice.' Part I consisted of Chapters One and Two, and aimed to provide an overview of the climate change problem and the climate ethics literature which has emerged as a response to this. Importantly, Part I also defended the use of the global justice position for the normative assessment of the climate change problem. The review of scientific evidence in Chapter One provided an insight into the main causes and

¹ Vanderheiden, S., 'What Justice Theory and Climate Change Politics Can Learn From Each Other' in *Political Science and Politics*, 46 (2013), p. 22

consequences of climate change. This first chapter outlined the key features of climate change, using the latest scientific evidence on the subject. It was illustrated that climate change threatens human interests, that less developed countries and future generations will be the main victims of climate change, and that climate change requires sustained collective action to avoid irreversible damages. Chapter Two then provided a critical assessment of four approaches found within the climate change ethics literature: statist, pragmatic, utilitarian, and cosmopolitan. It was put forward that out of these four approaches, the cosmopolitan approach is the most useful for a normative assessment of the climate change problem because cosmopolitan theories of global justice can best address the complex issues which arise as a result of the empirical conditions of climate change. Cosmopolitanism involves thorough normative reasoning, takes morally equal human beings as a starting point, and is critical of the status quo, all of which make it especially suited for the normative assessment of the climate change problem. In addition, it was demonstrated that climate change is arguably a problem of global justice by its very nature. Once it had been established that the cosmopolitan approach is useful for the normative assessment of the climate change problem, the thesis moved onto Part II: 'Developing a Global Justice and Climate Change Position.'

Part II aimed to develop normative principles that can be used for the assessment of current practice, and consisted of Chapters Three, Four and Five. Chapter Three made the case for an approach which combines a non-relational and relational scope. It was argued that both relational and non-relational elements of global justice are necessary to fully capture and understand the normative demands that stem out of the special relationships created by climate change. Next, Chapter Four made the case that the right to health should ground the climate justice position, because this right encompasses the basic human interests threatened by climate change. Chapter Five used the scope and grounds of climate justice developed in Chapters Three and Four to take a stance on three broad issues: how much is owed to future generations, how to include less developed countries in climate change action, and who makes up the responsible 'collective' in collective action. In doing so, the chapter defended three demands of justice that are considered normative principles which must underwrite a more just global response to climate change. Demand One states that right to health² of future generations must be considered to be equally as valuable as the right to health of current generations, and must therefore be protected.

² Defined as the right to a standard of health which sustains life at a minimally decent level, and includes adequate sustenance to maintain this standard of health.

Demand Two states that the concerns of less developed countries must be properly considered in climate change action, and furthermore that the distribution of benefits and burdens in global climate change action should be based in the PATP³ model. Demand Three states that capable actors, including individuals, firms, sub-state entities, international institutions, and states, irrespective of the country they live or exist in, must be held responsible for lowering emissions and/or contributing financially to the climate change cause, in line with their respective capabilities. These three demands completed the development of the climate justice position, and the thesis moved on to Part III, 'Assessing Current Institutional Practice.'

Part III of the thesis aimed to illustrate what normative principles of justice can reveal about current climate change governance processes. This final part of the thesis concerned assessing the global response to the climate change problem from a global justice perspective, and was split into three chapters. Chapter Six provided a conceptual introduction for the evaluation of current practice. This chapter clarified what is meant by current institutional practice, and outlined how current institutional practice can be assessed. Chapter Six put forward that both actors under the United Nations Framework for the Convention on Climate Change (UNFCCC) and actors involved in networked climate change governance processes have the institutional responsibility to enable a condition of justice in the case of climate change, due to their capability of creating a context where the three demands of justice defended in Chapter Five can be met. Chapter Six also explained that the actors under the UNFCCC have formal authority to act and are therefore most responsible for enabling a condition of justice in the case of climate change. However, it was explained this does not diminish the moral responsibility of other actors, specifically those involved in networked governance processes, if the actors under the UNFCCC should fail to enable the three demands of justice explicated in this thesis. It was illustrated that actors under the UNFCCC and within networked governance processes will remain morally responsible for enabling a condition of justice until this is achieved. In addition to outlining the responsibilities of actors in the UNFCCC and networked climate change governance,

³ Polluter's Ability to Pay model: the responsibility to contribute finances and lower emissions is based on both per capita emissions levels and per capita wealth. To illustrate, countries which have high levels of pollution and high levels of wealth will be asked to reduce their pollution and pay for climate change action, and countries of low wealth and high pollution will have to reduce their emissions as best possible, as long as it does not push them under a threshold of a decent standard of living, and only when they rise in wealth will they have to pay more towards climate change costs and further emissions reductions. Countries which have low emissions and low wealth will be excluded from action, and those with low emissions and high wealth may be asked to contribute financially but not lower their emissions.

Chapter Six developed a four point hierarchy to aid the assessment of current practice in Chapters Seven and Eight.

Making use of this hierarchy, Chapter Seven and Eight assessed to what extent actors under the UNFCCC and within networked climate change governance enable the three demands of justice developed in this thesis. The assessment of the UNFCCC, in Chapter Seven, and networked climate change governance, in Chapter Eight, is considered exploratory, and does not purport to make definitive claims about the practice of the actors within these processes. Rather, the thesis aimed, in these chapters, to illustrate how the climate justice framework developed in Part II of this thesis can be used to assess current practice. A comprehensive assessment of the UNFCCC and networked climate change governance is not possible within the scope of this thesis, which places an emphasis on both the development of a climate justice position and the application of this position. This allows somewhat limited space for the assessment of two complex processes of governance. Nevertheless, the assessment conducted in these chapters aimed to tentatively illustrate what the application of the climate justice position can reveal about current global climate change governance practice.

Chapter Seven found that while the actors under the UNFCCC have made normative commitments which are arguably in line with two of the three the demands of justice explicated in this thesis, the practice of these actors does not match up to their commitments. In other words, political reality is not living up to normative rhetoric. However, it was argued that the fact that the ambitions of the actors under the UNFCCC can be interpreted as in line with two of the three demands of justice indicates that the UNFCCC has the capacity to enable a condition of justice, because the UNFCCC is setting out a context where demands of justice could be met. It was not argued that this is guaranteed, or even *likely*, but rather that this is not impossible. Chapter Seven also commented on the progress of recent negotiations, and argued that there seems to be movement towards increased mitigation efforts and increased funding for climate change action. This tentatively implies that the actors in the UNFCCC will continue to have the capacity to enable a condition of climate justice in the future, especially if the new treaty presents a significant departure from the Kyoto Protocol.

Chapter Seven highlighted the following positive trajectories: a) a framework for policy on climate change exists and continues to exist, b) the existing framework is arguably based on

normative commitments analogous to Demands One and Two of justice as explicated in this thesis, c) actors under the UNFCCC have attempted to put, albeit still inadequate, policies into place to live up to their normative commitments, and d) these actors are continually attempting to move forwards. In addition to suggesting that the actors under the UNFCCC arguably do not enable any of the three demands of justice, the chapter also pointed to the following key hindrances faced by multilateral climate change governance: a) lack of compliance with the Kyoto Protocol, b) weak targets set by the Kyoto Protocol, c) limited financial and technological transfer, d) only a small number of states are currently held to account under the UNFCCC, e) ineffectiveness, f) lack of accessibility to less developed countries, especially the poorest and g) a focus on mitigation in favor of adaptation. The positive trajectories and current hindrances point to areas that need further exploration in future, especially once the Conference of the Parties (COP21) at Paris has occurred. This will be further discussed below, when considering future research directions.

Overall, Chapter Seven illustrated that actors in the UNFCCC fail to enable the three demands of justice set out in this thesis, which suggests that networked governance actors must act on their institutional responsibilities because a condition of justice has not yet been achieved. For this reason, Chapter Eight concerned to what extent actors involved in networked climate change governance meet their institutional responsibility to enable a condition of justice in the case of climate change. Making use of existing research on climate change governance, Chapter Eight conducted a climate justice focused meta-analysis of climate change governance. By drawing on existing research, and analyzing this from a climate justice perspective, the chapter was able to provide unique climate justice based insights on processes of networked climate change governance. The chapter pointed to the following positive trajectories: a) there are networked governance initiatives which have goals in line with the three demands of climate justice, b) there is capacity for emissions reductions, c) there is capacity for less developed country inclusion, and d) there is capacity for responsible actors to be held to account. Chapter Eight argued that overall, the actors involved in networked climate change governance have the capacity to create a context within which the three demands of justice can be met. This does not guarantee that the demands will be met, or even that this is *likely*, but rather that networked climate change actors can play an important role in realizing a just condition in the case of climate change. For this reason, Chapter Eight concluded that the further study of networked

climate change governance actors was important for climate justice theorists who are concerned with a more just response to climate change.

Although Chapter Eight found networked governance actors to be important in terms of climate justice, the chapter also made the case that several problems within these processes of governance prevent the three demands of justice from being fully enabled at present. Although there is continued space for action, flexibility, innovation, ambition, and momentum present within networked climate change governance, the marketization of the climate change problem, as well as the lack of radical or innovative changes in practice, indicate that networked climate change governance processes largely represent 'business as usual.' Networked climate change governance actors are not straying far from the action being conducted under the UNFCCC, and can therefore not be said to represent a more just response to climate change. Indeed, Chapter Eight pointed to several hindrances which face networked climate change governance actors, including a) it is unclear whether networked climate change actors are effective at reducing emissions levels, b) there is a focus on mitigation over adaptation, c) there is a marginalization of less developed countries, especially the very poorest, d) actors are not held to account more than voluntarily, e) there is a focus on market mechanisms, and finally, f) networked climate change governance processes present a 'business as usual' approach rather than a radical departure from current practice. Nevertheless, the chapter concluded that the counter-examples of Transition Towns and Carbon Trade Watch, as well as the continued growth and development of networked climate change governance, leaves some room for cautious optimism, and perhaps more importantly, further climate justice related research into this type of governance.

On top of these findings specific to networked climate change governance and multilateral governance, the thesis has also made several observations on what these processes have in common. For one, networked climate change governance actors and actors under the UNFCCC face similar hindrances, specifically a) lack of effectiveness b) a focus on mitigation over adaptation, and c) the marginalization of less developed countries, especially the very poorest. This suggests that there is some continuity in global climate change governance, even though the processes of multilateral and networked climate change are quite different in their scope and ambition. The apparent continuity of existing hindrances may imply that future research into effectiveness, lack of accessibility to less developed countries, and the focus on mitigation over adaptation may be useful.

In addition, because networked and multilateral climate change actors face similar problems, it may be too simple to say multilateral governance has failed, and that networked governance processes presents innovation towards a more just response to climate change. Instead, these processes are both problematic in terms of climate justice. Thomas Weiss has suggested that although networked climate change governance processes are not directly linked to the UNFCCC process, these processes are influenced and reinforced by action taken by the UNFCCC.⁴ This may be why multilateral and networked climate change governance actors face similar hindrances, and why networked climate change governance processes have not yet resulted in an innovative and radical shift in practice.

Overall, the assessment of actors in the UNFCCC and actors involved in networked climate change governance has aimed to illustrate that normative principles of justice can be used to assess current practice. The exploratory and preliminary nature of the research into current practice leaves scope for future research, which the chapter will discuss after brief outline of the limitations of the research conducted in this thesis.

Limitations of the Thesis

This thesis has several limitations which are important to outline in order to explain what the thesis has *not* attempted to achieve, or cannot achieve due to focus, space and time. First, the thesis takes a very specific approach to climate change: the normative assessment of the climate change problem from a global justice perspective. This is a limitation in the sense that there are many other approaches which could be taken in order to normatively assess the climate change problem. The thesis does not attempt to claim that the global justice approach is the only approach that can be taken, or that there are no other approaches that can be useful for the assessment of the climate change problem. Instead, the thesis has attempted to illustrate, particularly in Chapter Two, that the use of the cosmopolitan approach is warranted. In this way, the thesis does not aim to represent the 'best' approach for the assessment of the climate change problem, but rather one viable approach which has been illustrated to be highly useful for this assessment.

A second limitation of the thesis is that the global climate change governance has necessarily been simplified in order to be assessed. The thesis does not claim to paint an exhaustive picture of climate change governance, but rather aims to provide an overview of what is occurring under the UNFCCC and within networked climate change governance.

⁴ Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 166

It would not be possible to capture the full reality of climate change governance, because the processes involved are extremely complex and ever changing. This is especially true in the case of networked climate change governance, as was explained in Chapter Eight. Instead, the thesis has provided a broad insight into how climate change governance fairs in terms of enabling a condition of justice in the case of climate change.

A third limitation of the thesis is that the assessment conducted in Chapters Seven and Eight is not conclusive or comprehensive. Rather, the thesis aimed, in these chapters, to illustrate what application of the climate justice position can reveal about current global climate change governance practice. This fits with the wider aim of bridging the gap between global justice theorists and climate change governance scholars. Although there is more work to be done, the thesis has attempted to illustrate that these two fields can be successfully bridged by using principles of climate justice to evaluate current climate change governance practice and to provide normative principles from which considerations of reform could be based. In this sense, the research conducted in this thesis should be seen as a starting point for a discussion between the fields of climate justice and climate change governance, and this final chapter aims to point to how this discussion can be continued in future.

Future Research Directions

This thesis has aimed to illustrate that climate justice theorists have the potential to provide normative insights into current practice, which can inform the field of climate change governance. This final chapter will now discuss how the normative assessment conducted in this thesis can be used to underwrite future thinking about the global response to climate change. The discussion of future research will focus on continuing to bridge the gap between political theorists who study climate justice and those scholars who focus on climate change governance. The thesis has demonstrated, through the normative assessment of current practice, that this not only possible, but presents a worthwhile endeavor. The continued linking of these two fields will hopefully contribute to bringing about a more just global response to climate change. With this aim in mind, the chapter will now outline four areas of possible future research that speaks to further bridging the gap between climate justice theory and climate change governance research.

First, the thesis has revealed three hindrances faced by both multilateral and networked climate change governance actors: lack of effectiveness, the exclusion of less developed countries, and a focus on mitigation over adaptation. These hindrances require further

exploration. Although the UNFCCC and networked climate change governance faced some differing hindrances, it may be especially worthwhile to explore the hindrances these two processes have in common. This is because although networked climate change governance is not directly linked to the UNFCCC process, networked climate change governance processes are influenced and reinforced by action taken by the UNFCCC.⁵ At the same time, networked climate change governance initiatives influence the shape and evolution of the global response to climate change.⁶ If these two processes of climate change governance influence one another, it may be worthwhile to explore the problems they have in common, in order to ascertain what can be done to overcome these common hindrances so as to bring about a more just response to climate change. If a hindrance can be overcome at the UNFCCC, then this may be influential for overcoming the same hindrance in networked climate change governance, and vice versa. In addition, it may be interesting to explore what overarching factors are causing both types of governance to face similar problems – perhaps there are other influencing factors that have remained undiscovered in this thesis or within the current literature.

Second, it may be worthwhile to explore hindrances which only face multilateral or networked governance actors alone, and see whether there are factors within the other type of governance which may have influenced this hindrance. For example, scientists and scholars working for the Intergovernmental Panel on Climate Change have argued that one reason networked climate change governance actors have a preference for market mechanisms is because climate change governance as a whole has evolved in a way which has made market mechanisms the dominant solution to the climate change problem.⁷ This indicates that networked climate change governance actors are influenced by what occurs in the UNFCCC. According to Peter Lawrence, it is vital that ethics and justice discourses become more prominent in climate policy making, so that the dominant discourse of growth and markets may be countered.⁸ Interestingly, at the most recent COP, COP20 in Lima, networked governance actors, particularly less developed country actors, focused on discussion of climate equity, or more specifically an ‘equity reference framework’ for

⁵ Weiss, T. G., *Global Governance: Why? What? Whither?* (Cambridge: Polity Press, 2013), p. 166

⁶ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 9

⁷ Intergovernmental Panel on Climate Change, Working Group III ‘Climate Change 2014: Mitigation of Climate Change’ http://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_full.pdf [accessed 12.02.2015] p. 1031

⁸ Lawrence, P., *Justice for Future Generations* (Cheltenham: Edward Elgar Publishers, 2014), p. 140

determining the fair share of mitigation and financial contributions.⁹ This may represent a shift in dialog away from 'business as usual' and towards a discourse of justice. It may be worthwhile to observe whether this has any effect on the dominance of market mechanisms, or whether the UNFCCC will continue to influence the shape and direction networked climate change governance takes.

Aside from researching hindrances, a third possible avenue for future research on climate justice and climate change governance is research into whether multilateral and networked climate change governance processes should become more integrated, or whether it is more useful, in terms of enabling a condition of justice, to leave these as separate processes. This links to existing research on fragmentations vs. integration of climate change governance, a debate that is becoming increasingly important within the climate change governance literature. This debate concerns whether the UNFCCC and networked climate change governance processes should work more closely together with the help of rules and regulations (integration), or whether these two processes should remain independent from one another (fragmentation). Global climate governance can currently be characterized as fragmented, because although there is one core actor (the UNFCCC), there are multiple other avenues of climate change action being pursued.¹⁰ As a result of this, it is difficult to argue that climate change governance is likely to become integrated without some intervention. Interestingly, there is currently no agreement in climate change governance literature on whether the regime should remain fragmented or become more integrated.¹¹ The main arguments in favor of integration are that an integrated regime is more effective both in terms of lowering emissions and costs, and that an integrated regime avoids overlap because roles can be more clearly defined.¹² The main arguments in favor of fragmentation are that the world is better off pursuing a multitude of small-scale solutions rather than waiting for an unobtainable global solution, that fragmented

⁹ Earth Negotiations Bulletin, 'Summary of the Lima Climate Change Conference' <http://www.iisd.ca/download/pdf/enb12619e.pdf> [accessed 10.02.15], p. 37

¹⁰ Biermann, F., Pattberg, P., Zelli, F., and Van Asselt, H., 'The Architecture of Global Climate Governance' in Bierman, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 22

¹¹ *Ibid.*, p. 15

¹² See for example: Hof, A., Den Elzen, M., and Van Vuuren, D., 'Environmental Effectiveness and Economic Consequences of Fragmented Versus Universal Regimes: What Can We Learn From Model Studies?' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), or Hale, T., Held, D., and Young, K., *Gridlock: Why Global Cooperation is Failing When We Need it Most* (Cambridge: Polity Press, 2013)

governance is more effective, innovative and ambitious, and that there will be greater participation and diversity of action because of the flexibility fragmentation allows for.¹³

The debate concerning integration vs. fragmentation is important for future research on climate justice and climate change governance, especially pertaining to the concern of bringing about a more just response to climate change. Andries Hof et al. have studied fragmented regimes, and make the case that it is in general more cost-effective to reduce emissions in an integrated regime than in a fragmented regime.¹⁴ The main reason for this is that high participation is required for an emissions reducing regime to be effective.¹⁵ Harriet and Bulkeley make a similar case for integration, explaining that action on many scales and through many dispersed but overlapping networks can be ineffective.¹⁶ In addition, Thomas Hale et al. point out that coordination of efforts may be difficult in a fragmented regime, which could undermine effectiveness.¹⁷ This indicates that an integrated regime results in more effective emissions reductions, which is important in order to protect the right to health of future generations. However, although it is clear that these scholars believe coordination between the UNFCCC and networked climate change governance processes could result in a more effective regime, there is an important argument against integrating these two processes: the current climate change governance regime is fragmented and thus it is important to find workable solutions within this 'real' context.

Since the regime is currently fragmented, attempting to coordinate integration is risky, because this will necessarily take time. For this reason, it may be better to pursue overlapping small-scale solutions than to wait for an unobtainable global solution. As Elinor Ostrom explains, given the decades-long failure at an international level to reach agreement on efficient, fair, and enforceable reductions of emissions, continuing to wait

¹³ See for example: Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), Abbott, K. W., 'The Transnational Regime Complex for Climate Change' in *Environment & Planning C: Government & Policy* 30(4) (2012), pp. 571 – 590, Ostrom, E. 'A Polycentric Approach for Coping with Climate Change' *World Bank Policy Research Working Paper*, 5095 (2009), or Keohane, R. O., and Victor, D. G., 'The Regime Complex for Climate Change' in *Perspectives on Politics* 9(1) (2011), pp. 7 – 23

¹⁴ Hof, A., Den Elzen, M., and Van Vuuren, D., 'Environmental Effectiveness and Economic Consequences of Fragmented Versus Universal Regimes: What Can We Learn From model Studies?' in Biermann, F., Pattberg, P., and Zelli F., (eds.) *Global Climate Governance Beyond 2012: Architecture, Agency, and Adaptation* (Cambridge: Cambridge University Press, 2010), p. 55

¹⁵ *Ibid.*

¹⁶ Bulkeley, H. and Newell, P., *Governing Climate Change* (London: Routledge, 2010), p. 106

¹⁷ Hale, T., Held, D., and Young, K., *Gridlock: Why Global Cooperation is Failing When We Need it Most* (Cambridge: Polity Press, 2013), p. 47

may defeat the possibilities of significant adaptations and mitigation in time to prevent tragic disasters.¹⁸ When considering the severity of the threat of climate change, simply waiting for resolution of these issues at a global level, without trying out policies at multiple scales because they lack a global scale, is not a reasonable stance.¹⁹ This calls into question whether it is worthwhile to pursue an integrated regime, especially when considering how long this may take to be achieved. Furthermore, Ostrom asserts that without numerous innovative technological and institutional efforts at multiple scales, it will not be possible to learn which combined sets of actions are the most effective in reducing the long-term threat of massive climate change.²⁰ In other words, the more actors working on the problem, the more likely it will be to find an effective solution. According to Hoffman, networked climate change actors are innovative, pushing the envelope of what is possible, actively seeking out and creating gaps in the response to climate change and attempting to fill them.²¹ If these processes were reigned in by global rules of an integrated climate governance regime, then this innovation may be stifled, which could slow the process of finding effective solutions to the climate change problem. It is clear from the above that future research on climate justice and climate change governance would benefit from engaging with this existing debate, in order to explore whether an integrated or fragmented regime speaks represents a more just response to climate change, particularly in terms of effectiveness, flexibility, and innovation.

A fourth and final avenue for future research lies in exploring how the inadequacies of the climate change response compare to the governance of other global problems. There has recently been some research into the wider problems of global governance, conducted by Thomas Hale, David Held, and Kevin Young. These scholars assess the failure of global governance to address urgent problems, including growing economic imbalances within and across countries, proliferation of nuclear arms, and basic insecurities that persist from violent conflicts.²² Hale, Held, and Young refer to the failure of global governance as 'gridlock:' a breakdown in global cooperation which has resulted in the growing gap between our need for global solutions and the flagging ability of multilateral institutions to

¹⁸ Ostrom, E. 'A Polycentric Approach for Coping with Climate Change' *World Bank Policy Research Working Paper*, 5095 (2009), p. 4

¹⁹ *Ibid.*, p. 28

²⁰ *Ibid.*, p. 4

²¹ Hoffman, M.J., *Climate Governance at the Crossroads: Experimenting with a Global Response after Kyoto* (Oxford: Oxford University Press, 2011), p. 78

²² Hale, T., Held, D., and Young, K., *Gridlock: Why Global Cooperation is Failing When We Need it Most* (Cambridge: Polity Press, 2013), p. 2

meet that need.²³ Their research examines three issue areas: the governance of security, the economy, and the environment, and they argue that these issue areas face similar problems of gridlock. It is important to explore if these issue areas also face similar problems in terms of enabling a condition of justice. If they do, then perhaps a normative recommendation for a more just response to climate change could also be applied to other global governance problems.

For now, although it is difficult to determine what has been achieved overall and what will be achieved in the future, the thesis has revealed that there has been some progress made in terms of creating a just response to climate change. Although climate change governance faces many hindrances, there have been some positive trajectories, and, importantly, promises made which are in line with the demands of justice outlined in this thesis. Of course, progress does not guarantee eventual success. Nevertheless, the thesis has illustrated that both actors under the UNFCCC and within networked climate change governance have the capacity to enable a just response to the climate change problem. It may not be probable, or even *likely*, for a just global response to climate change to emerge. Yet, it is also not impossible – the capacity for change exists, as has been demonstrated in this thesis. This is important, because as Hale, Held, and Young argue, a single breakthrough in climate change negotiations could catalyze a paradigm shift in the way the world community conducts the business of governance; a single successful act of reform could become a model for the resolution of other pressing global governance issues.²⁴ The aim of bringing about a more just response to climate change is therefore important not only to those who will be affected by climate change, but also for those who are victims of wider failures of global governance, threatened by nuclear proliferation, terrorism, and continued economic inequality. By providing an insight into the injustices of the current response to climate change, this thesis has hopefully provided a step in the direction towards more just global governance in the future.

²³ Hale, T., Held, D., and Young, K., *Gridlock: Why Global Cooperation is Failing When We Need it Most* (Cambridge: Polity Press, 2013), p. 3

²⁴ *Ibid.*

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