North-South division and injustice in the UNFCCC climate finance policy process: A historical institutionalist perspective

PhD Thesis

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April 2019

Abstract

Rooted in the core injustices of climate change, climate finance is central to ongoing North-South political contestation in the global governance of climate change and UNFCCC policy output, but has been given considerably less attention by scholars than mitigation and adaptation. This thesis uses a historical institutionalist approach to add to existing international relations and international political economy research into global environmental governance and justice, extending the application of historical institutionalism at the international level. With an emphasis on North-South political and justice divisions, the project examines the original institutional design of the UNFCCC in 1992 and the subsequent development of four contested areas of the climate finance policy process until 2015, identifying evidence of coalition building, incremental change, path dependence, policy paradigms and other mechanisms whereby institutional rule structures rooted in the initial institutional design have affected actors' power, interests, ideas and behaviour. The thesis finds that in all four policy areas the UNFCCC's initial policies and, in some cases, policy ambiguities, were shaped by developed countries' material interests and normative perspectives. This gave advantages to developed countries that enhanced their political power within negotiations and affected the policy process in such a way that developing countries usually had to seek institutional change, while developed countries could reinforce existing rule structures. Examples of institutional change in the four areas are limited, and in most cases were in line with developed countries' shifting objectives rather than indicating developing countries genuinely overcoming disadvantageous structures. Overall, the thesis demonstrates that institutional design and development are important factors perpetuating North-South contestation in the UNFCCC climate finance policy process and limiting the realisation of developing countries' interests and priorities, and shows that historical institutionalism can offer useful new insight into global environmental governance institutions and the justice of their outcomes.

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Declaration

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Philip Coventry

Acknowledgments

I am grateful to my main supervisor, Professor Chuks Okereke, for your invaluable input and support that has helped me throughout my PhD experience, from creating the project all the way to completion. I also really appreciate the opportunities you gave me to write, publish and teach. Thank you for seeing and encouraging my capability. I am also grateful to Professor Catriona McKinnon for your encouragement and input despite the divergence in our research areas.

Thank you to the Economic and Social Research Council for the funding that enabled me to do this PhD, to Chuks and Catriona for helping me secure the funding, and to the University of Reading for providing a base for my research.

Thank you to the gang in the GES office for your good company and many chats, sorry I disappeared! I am very grateful to Vera, Anna, Alex, Rob, Gem & Andy, Asha & Mike and David & Beryl for giving me places to stay when coming back down to Reading and London, that was a really big help.

Thank you to Sarah, Iain, Dan and Stefan for being excellent, fun and caring housemates in York, and to Pete & Miriam for giving this Southerner a taste of life in t'country and for your support during the final stressful months. I am grateful for all the listening ears and words of encouragement from many friends, family, Paul and my brother Rob over the course of my PhD, thank you for helping me through. Thanks especially to the cottage gang for giving me boosts whenever I needed.

I am very grateful for the support and encouragement of my parents, Chris & Jeremy, throughout my childhood and as I've made my way through adult life, and for your help with decisions and finances. Thank you for always believing in me, even as I moved on from London life and began this academic journey.

Acronyms & terminology

Negotiating Blocs

African Group	Bloc of 54 African countries
AILAC	Independent Alliance of Latin America and the Caribbean (8 countries)
AOSIS	Alliance of Small Island States (39 low-lying island developing countries, speaks for the SIDS in relation to climate change)
Arab Group	Bloc of 22 countries
BASIC	The BASIC Group (Brazil, South Africa, India and China)
EIG	Environmental Integrity Group (6 mixed countries)
EU	European Union
G77/China	The Group of 77 at the UN and China (now 134 developing countries)
LDCs	Least Developed Countries (48 developing countries)
LMDCs	Like-Minded Group of Developing Countries (24 countries)
OPEC	Organization of Petroleum Exporting Countries
SIDS	Small Island Developing States (40 low-lying island developing countries, a classification/bloc within the UN system)
Umbrella Group	Bloc of 12 developed countries

Institutional Components & Terminology

ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action (negotiating track leading to COP-21)
Annex I/II	Groupings of OECD countries (I) / OECD and economies in transition (II) used for differentiating commitments in the Convention and Kyoto Protocol
AWG-LCA	Ad Hoc Working Group on Long-term Cooperative Action under the Convention (negotiating track leading to COP-15)
Bali Action Plan	Plan adopted at COP-13 in 2007 initiating negotiations leading up to COP-15, including the AWG-LCA process
CBDR	Common But Differentiated Responsibilities principle
CDM	Clean Development Mechanism
The Convention	Used to refer to the founding treaty of the UNFCCC, as opposed to the political institution built upon it
COP	Conference of the Parties to the UNFCCC
CMP	Conference of the Parties [to the UNFCCC] serving as the meeting of the Parties to the Kyoto Protocol
GCF	Green Climate Fund
GEF	Global Environment Facility
INC	Intergovernmental Negotiating Committee (talks leading to the Convention)
Incremental costs	Additional costs over and above business-as-usual spending
INDC	Intended nationally determined contribution (became NDC after COP-21 in 2015)
LDC Fund	Least Developed Countries Fund
MOU	Memorandum of understanding
MRV	Monitoring, reporting and verification (of climate finance)
NAPA	National Adaptation Plan of Action

NDC	Nationally determined contribution (INDC before COP-21 in 2015)
Non-Annex I/II	Countries not assigned to either of the Annexes, i.e. a catch-all grouping for developing countries
ODA	Official Development Assistance (development spending by OECD countries reported under the OECD's system)
Party	A signatory to the UNFCCC or Kyoto Protocol and participant in the policy process
RAF	Resource Allocation Framework (a GEF policy for allocating funding to projects)
REDD	Reducing emissions from deforestation and forest degradation (UNFCCC mitigation programme, subsequently REDD+ to include afforestation and other measures)
SBI	Subsidiary Body for Implementation (this body holds meetings several times a year as part of the UNFCCC policy process)
SBSTA	Subsidiary Body for Scientific and Technical Advice (this body holds meetings several times a year as part of the UNFCCC policy process)
SCCF	Special Climate Change Fund
SCF	Standing Committee on Finance (assists the COP in relation to the financial mechanism)
UNFCCC	United Nations Framework Convention on Climate Change

External Organisations

IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
MDB	Multilateral development bank
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
OECD-DAC	OECD Development Assistance Committee (oversees Official Development Assistance)
UN	United Nations
UNDP	UN Development Programme
UNEP	UN Environment Programme

Other Terminology

GDP	Gross domestic product
GNI	Gross national income

1. Introduction

1.1 Introducing the project

Climate finance is at the centre of justice and political contestation in the global governance of climate change, since 'who has to pay, how they have to pay and how much to pay for the mitigation of and adaptation to climate change' are questions at the heart of the governance regime (Prys and Wojczewski 2015, p. 93) that directly reflect the North-South injustices central to the climate change problem. North-South division and its roots in justice concerns have characterised climate change politics and the climate finance policy process, but most mainstream international relations analysis approaches global climate governance with either a rationalist focus on co-operation and regime effectiveness or a constructivist focus on ideas and norms socialising states. Most research about the justice of climate governance considers governance processes in the context of broader systemic features and injustices and which actors can participate, rather than looking at the design and influence of institutions in detail over time. Largely missing from this landscape of scholarship is work that bridges these areas or approaches, bringing to the fore the way institutional design is a product of existing systems and inequalities and how subsequent institutional development has reinforced uneven power distribution and influenced the prominence of particular ideas, interpretations and interests over time. Despite its centrality to climate governance and justice, climate finance has been given considerably less attention by scholars than mitigation and adaptation. Consequently, with an emphasis on the prevalent North-South divide over climate justice, this thesis uses a historical institutionalist approach to explore how the design and development of the UN Framework Convention on Climate Change (UNFCCC) climate finance regime has shaped actors' power, interests, ideas and behaviour and the policy outcomes over time.

A few scholars have pointed to the UNFCCC's origins in an era when greenhouse gas emissions were seen as central to economic prosperity and development (O'Riordan and Jordan 1999), and suggested that institutional inertia within the UNFCCC has led to retention of initial problem framings and a territorial basis for considering greenhouse gas emissions, preventing UNFCCC policy effectively adapting to the changing geopolitical and economic landscape (Vogler 2016, pp. 30–31). In light of this, 'to a very large extent, climate change politics over the last 20 years seems to have been all about the politics of the possible, what is acceptable within the parameters of mainstream political, economic and social thinking' (Mickelson 2009, p. 422); the time is right to look back and use a historical approach to investigate what these parameters actually entail and how the design and development of

the UNFCCC itself has affected the governance processes and actor behaviour within. Having developed as a means to identify how the form and evolution of institutions shapes and constrains the behaviour of actors within them and the longevity of policy choices they produce (Thelen and Steinmo 1992), historical institutionalism is ideally suited to analysis of how institutional design and development has reflected and affected North-South injustices and power imbalances and influenced policy outcomes over time. In this endeavour, historical institutionalism's focus on the construction, maintenance, and adaptation of institutions rather than the logic-driven motivation of particular preferences (Sanders 2008, p. 42) allows it to stand aside from debates between constructivism and rationalism in international relations.

Global climate governance followed multilateral environmental agreements before it, taking the form of a high-level treaty, the UNFCCC, under which more detailed and prescriptive rules would be created at periodic intervals. The negotiating forum central to this regime brings almost all countries together to form policy; perspectives on justice and funding are at the core of the priorities and approaches that different countries bring to negotiations (Gupta 1999, Hoffman 2013). These differences have consistently fallen on either side of a North-South division (Parks and Roberts 2008, Streck and Terhalle 2013), and although the landscape of developing countries and their incomes and emissions has changed over the course of UNFCCC history (Ciplet and Roberts 2017), climate change remains 'the archetypal North-South and rich-poor issue' (Gupta 2015, p. 142). This is particularly true for climate finance, where the very basis of the policy area stems from North-South histories and encapsulates current inequalities; the injustices of climate change and countries' perceptions of themselves as either contributors or recipients of finance shape the political bargaining and the struggle to achieve justice in global climate governance (Ghosh and Woods 2009).

The prevalence of North-South division within UNFCCC climate finance indicates perspectives and histories that are essential to understand when embarking on a historical institutionalist analysis of this policy area and the institutional context in which it has been formed, since historical institutionalism is principally concerned with how institutions are both products of and go on to shape and constrain the preferences of actors in the relevant political sphere (Koelble 1995, O'Riordan and Jordan 1999). In doing so, historical institutionalism can help to reveal the mechanisms and micro-processes by which power inequalities were reflected in the design of the institution and have been subsequently reinforced or overcome at the policy level (Mahoney 2000). These processes are currently under-researched at the international level but have important implications in practical financial terms and for the pursuit of justice, since the huge sums of money involved in

climate finance mean the stakes are high for countries on both sides of the North-South divide and the regime has not yet produced policy sufficient to deliver climate finance in a manner and quantity that meets the needs articulated by developing countries and reflects their conception of justice (Ciplet et al. 2013). Furthermore, the central role of both power and ideas within historical institutionalism lends itself to a political environment where North-South divisions are prominent and deeply-rooted, and normative claims underpin both the problem itself and the governance process.

1.2 Outline of the thesis

This thesis will examine in detail the creation of the UNFCCC climate finance policy area, the interaction between actors within the policy process and the progression of policy making over time, to illustrate the extent to which the design and evolving rules and structures that comprise the institution have influenced the way actors have behaved in the policy process and what the policy outcomes have been. The thesis will focus on the climate finance policy area because climate finance is both deeply rooted in injustice and North-South politics and central to whether the climate governance regime as a whole reinforces or reduces those injustices. This North-South perspective and broader contestation over climate justice underpin the thesis, based on the notion that addressing the ethical and distributive aspects of climate change is a valuable endeavour and because climate finance has generated such controversy around the North-South axis that further investigation of this axis is vital for understanding the implications of climate finance policy making at the global level.

In pursuit of these aims, the thesis is divided into three parts: Part I, 'Reviewing Climate Finance, Justice, and Institutional Theory', Part II, 'Historical Analysis and Institutional Insight', and Part III, 'Research Findings, Discussion, Context & Conclusion'. Part I will situate the project within existing scholarship, introduce the theoretical approach and explain the research methodology. Within this, Chapter 2 will explore the justice and politics of climate finance, explaining how climate finance relates to the core injustices of the climate change problem and established perspectives on macro-level systems and North-South divisions, and using these to explain why climate finance is necessary and how this need has been addressed by the international community both within and beyond the UNFCCC. Key policy controversies within climate finance will be explained, incorporating an outline of how UNFCCC policy and the institutional architecture has been initiated and evolved. Chapter 3 will provide an overview of research into international institutions and environmental governance regimes across international relations and international political economy. It will then introduce historical institutionalism and explain how this

approach can add to existing understanding of climate justice and governance, why it is suited to the project's aims and how its use here will go beyond previous applications of historical institutionalism, before setting out the key tools of historical institutionalism. Chapter 4 will explain how the project will be undertaken, including data sources and how institutional theory will be distilled into practical indicators to facilitate the temporal analysis and underpin documentation of the findings.

Part II will document the historical institutionalist analysis in Chapters 5, 6 and 7, in which four contested areas of climate finance policy making will be examined in detail from the process of negotiating the UNFCCC in 1990-1992 until COP-21 in Paris in 2015. These analytical chapters will present evidence of actor behaviour in the policy process combined with details of the policy output produced over time, identifying stability and change in institutional rules and structures and highlighting evidence of mechanisms that contributed to these patterns and affected the way in which actors interacted and policy was produced, with a particular emphasis on the North-South divide. Part III will summarise and discuss the findings and conclude the thesis. Chapter 8 will draw together findings from the analytical chapters in Part II, identifying similarities and highlighting mechanisms of institutional influence that can help to explain actor behaviour and policy outcomes over time. The chapter continues by discussing these findings, first by reflecting on the extension of historical institutionalism by applying it to the UNFCCC and showing how the thesis' findings add to existing uses of this approach, and then by placing the findings in the broader context of North-South politics and climate justice, highlighting how the institutional research adds to other perspectives. Chapter 9 will conclude the thesis by summarising the project, highlighting its original contributions and setting out potential future research directions.

1.3 Key contributions of the thesis

This thesis chiefly aims to add a new dimension to scholarship on climate justice and governance by focusing on the design and development of the institution in which global climate finance policy is negotiated. The positioning and approach of this thesis is particularly relevant to how governance outcomes relate to the targets and demands articulated by developing countries, and their understanding of climate justice (Najam et al. 2003, Stadelmann et al. 2010). Climate governance is commonly characterised as a battleground with Northern, developed countries on one side and Southern, developing countries on the other (Roberts and Parks 2007, Gupta 2015). International relations and international political economy scholars have shown that power, inequality, climate vulnerability, histories of development and unequal economic relationships all factor into

this characterisation (Roberts and Parks 2009, Okereke 2010, Brunnée and Streck 2013), but this thesis is motivated by a claim that a comprehensive understanding of experiences and outcomes of the climate finance policy process and the UNFCCC governance regime should also include knowledge of the role that institutional design and development has on the interaction and policy making that takes place. In this way, the thesis can help to enrich broader understanding of how North-South dynamics manifest themselves in global governance institutions and of the challenges and constraints faced by developing countries as they participate in global governance processes.

The research novelty of this project has two major dimensions: firstly, addressing North-South politics and climate justice by focusing on the institutional design and structure of the governance regime. Much has been written about the politics and policy of climate finance and climate governance, in terms of the development of the governance regime and the politics within it (Jordan 1994a, Bodansky 2001, Gomez-Echeverri and Müller 2009, Gupta 2014, Kuyper et al. 2018), and its role in facilitating co-operation between states in the international political arena (Victor 2006, Ciplet 2015, Falkner 2016). The implications of justice in interaction between different countries and in policy outcomes have been analysed (Paavola 2005, Okereke 2010, Falkner 2019), particularly distributional (Paavola and Adger 2006, Müller et al. 2009) and participatory dimensions (Richards 2001, Paavola 2005). However, as yet the impact of the institution's design and development itself in shaping actors' preferences and interests and the way they are included in or excluded from the policy process over time have not been studied extensively. By engaging with this institutional angle, a historical institutionalist approach to climate finance and justice will open a fruitful avenue of research, adding new detail and perspective to how scholars and other researchers understand the politics and outcomes of the climate finance policy process and UNFCCC regime.

Secondly, in using a historical institutionalist approach this thesis will make an original contribution by extending the application of historical institutionalism to the global climate governance regime. While historical institutionalism has grown in stature within the academy over the last 20 years, it has principally been used to analyse the development and functioning of national governments and bureaucratic ministries (Thelen 1999, Immergut and Anderson 2008). More recently, scholars in the field have begun to champion the application of historical institutionalism at the international level of governance institutions and its potential to add to existing international relations and international political economy scholarship (Fioretos 2011, Hanrieder 2014, Rixen and Viola 2016). Although there is a growing body of research involving historical institutionalism in 'contributions on state sovereignty and foreign economic policy, as well as research in

international security, international political economy, international law, and global governance' (Fioretos et al. 2016a, p. 4), climate finance policy and the UNFCCC governance regime has not yet been the subject of detailed historical institutionalist study. This thesis will contribute to this burgeoning expansion of historical institutionalism at the international level, extending the theoretical approach by applying it to the UNFCCC, a treaty-based multilateral governance institution where negotiations take place every year and policy is produced almost continuously. As well as offering new insight into the UNFCCC climate finance policy process and its outcomes, this project can illuminate the potential of research applying historical institutionalism to international environmental governance regimes and the challenges involved.

Part I:

REVIEWING CLIMATE FINANCE, JUSTICE AND INSTITUTIONAL THEORY

2. The justice and politics of UNFCCC climate finance

2.1 Introduction

From the outset as climate change emerged as an issue of international attention and co-operation, the question of who will fund the action necessary to respond effectively has been central to policy debates at all levels of governance. This question is deeply rooted in and has important implications for justice, since the contributions to the problem of climate change are highly asymmetrical, most notably on a North-South axis (den Elzen et al. 2013). There are many different types of action to mitigate and adapt to climate change that are both necessary and possible, and the money to fund them must come from somewhere. As a result, funding issues have been a part of climate policy debates across the UNFCCC's remit, shaped by North-South inequalities of both contribution to the problem and current levels of wealth (Prys and Wojczewski 2015). More recently, as more and more empirical evidence about climate change has been gathered and more accurate forecasts generated, the scale of the finance required to undertake an effective global response has become better understood and the urgency of this response has increased (Gomez-Echeverri 2013). However, early hopes that international co-operation over climate change would bring about enormous transfers of money from the Global North to the South have not come to fruition (Patt et al. 2019, p. 556). To date, there has been little research into why a patchwork of funds and mechanisms has emerged from the UNFCCC climate finance policy process, with no clear basis to underpin policy and an increasing focus on private finance to meet what many consider to be developed countries' moral obligations.

The UNFCCC does not govern in isolation, and the way its Parties have addressed climate finance within its policy process is part of a broader landscape and history of governance systems and institutions, political interaction and power distribution, and injustices and inequalities. Particularly important is the history of international development funding and North-South relationships and divisions, which involve similar issues of vulnerability and poverty in the context of wider social processes and the relationship between individuals and the environment (Boyd 2014). These issues and histories highlight the ongoing prominence of injustices as a factor shaping how different countries perceive climate finance and the broader climate change problem (Pickering, Jotzo, et al. 2015); flows of finance are therefore necessary to generate and maintain developing countries' confidence that developed countries will meet commitments of

financial and other support that have both moral and institutional foundations (Ballesteros et al. 2010). Despite the centrality of climate finance to climate justice and governance, few scholars have given it the sustained attention it deserves and connected climate finance policy negotiations and outcomes with histories of injustice and North-South political division.

This chapter will introduce the justice and political dimensions of climate finance and the climate change problem, explain how the UNFCCC and its climate finance policy area fits into broader debates over justice and development, and outline how key finance policy controversies originated and have evolved. This will involve an examination of how injustice underpins the need for climate finance and associated moral obligations, and how climate justice scholarship has approached climate finance within the broader governance regime. This will lead to an overview of key issues that derive from donor and recipient countries' concerns over how finance is obtained, delivered and monitored; these issues are central to political contestation within the UNFCCC policy process. To facilitate a detailed picture of the institutional context of this contestation, the chapter will also incorporate explanations of the design, functions and evolution of the climate finance area of the UNFCCC. The overall purpose of the chapter is to explain how justice issues and political contestation have been central to the climate finance policy process and demonstrate the need for deeper research into how and why the UNFCCC climate finance policy process has developed without resolving these contestations.

2.2 Climate finance, justice and politics

There is now a very strong scientific consensus that climate change is occurring, fuelled by greenhouse gas emissions from human activity (Oreskes 2004, Cook et al. 2013, Goldin 2013). The history of this human activity involves uneven economic development, with benefits from carbon-intensive activity accruing mostly in Northern countries while climate change will affect most Southern countries more severely (Roberts and Parks 2009). The costs of responding to climate change are projected as trillions of dollars and climate change is an extremely complex moral issue, with a multitude of factors involved in determining how to assign responsibility and share the financial burdens of responding. As a result, climate finance is at the heart of both the injustices of climate change and the North-South political contestation that has characterised the political process of co-ordinating a global response, as nations grapple with the inescapable questions of where funding should come from, how it should be provided and how much is required (Prys and Wojczewski 2015). The important North-South dimensions to these questions, and the political processes involved in climate finance governance institutions and policy processes, cannot be understood without first

establishing the need for climate finance and how this relates to the core injustices of climate change. After addressing these foundational aspects of climate finance, this section will set out how international relations and international political economy scholars have studied the justice of climate finance and its governance, before exploring the roots and prominence of the North-South division that characterises global climate finance governance.

2.2.1 The need for climate finance

The process of mitigating and adapting to climate change can be viewed as a burden or an investment opportunity, or both, but in all cases the costs involved are huge. These costs will be estimated as greater or lesser depending on the predicted impacts of climate change, the degree of transformation perceived as required or desirable, and the range of sectors included in the assessment (Olbrisch et al. 2011). A wide range of estimates have been produced by a variety of scholars, governments and international organisations, based on a variety of assumptions, definitions and criteria. In a widely-cited (Parry et al. 2009, Lemos and Boyd 2010, Purdon 2014) study, the UNFCCC (2007) estimated that US$200-210bn of investment would be required by 2030 to return greenhouse gas emissions to current levels. A study by McKinsey & Company (2009) into emissions-reduction pathways found that implementing every possible measure in pursuit of limiting temperature rise to 2°C would cost €530bn a year in 2030 and €810bn a year in 2050, again on top of business-as-usual investments that would happen anyway. Olbrisch et al. (2011) reviewed several studies, including those by the UNFCCC and McKinsey & Company mentioned here and others by the World Bank and International Energy Agency, and found that estimates for the level of investment required in developing countries for mitigation ranged between US$175bn and US$565bn in addition to investments that would take place anyway. The IPCC recently estimated that keep to a 1.5°C temperature rise will require around US$830 billion in additional annual energy-related investments (IPCC 2018, para. C.2.6), and other estimates range as high as US$3.5 trillion a year for the next 40 years to achieve a wholesale transformation of the energy economy across the world (Stern 2009a, IEA and IRENA 2017).

In terms of adaptation, Parry et al. (2009) reviewed a range of earlier "first-generation" studies, including Oxfam, the World Bank and UNDP. They found estimates for adaptation costs in developing countries ranging from US$4bn to US$109bn per year, again with a variety of presumptions and criteria, and noted that this wide range reflects the difficulty in formulating these estimates. The aforementioned UNFCCC study found that the cost of adapting to climate change would run to 'several tens of billion' dollars per year over and above existing levels of investment, with US$28-67bn required in developing

countries (UNFCCC 2007, pp. 125, 177). The World Bank (2010, p. xvi) found that the costs 'between 2010 and 2050 for adapting to an approximately 2°C warmer world by 2050 will be in the range of $70 billion to $100 billion a year' and may well be higher once cross-sectoral impacts are taken into account. Fankhauser (2010) notes that the World Bank report takes the concept of adaptation further than other studies, to the point where pre-climate change levels of welfare are restored with no residual damage, and reports that Project Catalyst built on the UNFCCC report to produce (unpublished) estimates of US$13–25 billion (for 2010–2020) and US$25–76 billion (for 2030). More recently, the IPCC 5th Assessment Report (2014) gave an assessment of US$70-100 billion per year, largely based on the 2010 World Bank study, and the UNEP (2015) has predicted that adaptation costs in developing countries could rise to 2-3 times these levels by 2050, even if warming is kept under 2°C.

Moore (2012, pp. 191–192) goes into greater detail about the range of assumptions and conceptual differences that shape adaptation cost estimates, describing them as conflicts over normative perspectives. These shape assumptions about 'placing values on people, species, and cultures that may be destroyed through climate change', with specific reference to the degree to which a compensation framing is validated by scientific discourse and the priority given to efficiency and private adaptation within cost estimates. In the same vein, Bowen et al. (2017) estimate that financial transfers from the Global North to the Global South of around US$400bn a year by 2050 will be required to equalise spending on climate change responses across countries according to GDP. This is equalising in purely monetary terms, of course; the question of how to bring about a morally satisfactory degree of equalisation is at the heart of some of the most fervent disagreement in the short history of the climate change governance regime.

2.2.2 Climate finance and broader climate justice

The cost estimates detailed above illustrate the scale of funding necessary to implement an effective global response to climate change, but the need for climate finance is a product of the injustices central to the climate change problem and cannot be understood as simply a matter of economics. The core injustice of climate change is captured in the "double inequity" described by Füssel (2010). Firstly, climate change is having more rapid and severe effects in tropical regions, where most of the countries in the Global South are located (IPCC 1990, 2013, 2014). Not only will the effects be more severe, but the poverty still experienced by many millions in the developing world makes individuals and communities more vulnerable to damage or suffering when temperature and precipitation patterns change or extreme weather events occur (Huq and Ayers 2007, Parnell 2014). Furthermore, developing countries are generally less resilient to climate change in terms of infrastructure, financial

and other resources, and the capacity of government institutions to create and implement policy responses (Adger 2003, Nurse and Moore 2005). This has extremely serious consequences for lives and wellbeing; climate change could increase the number of people living in poverty by between 35 and 122 million by 2030, with the greatest impact in sub-Saharan Africa (FAO 2016, pp. 9–13).

Secondly, the majority of developing countries made little contribution to bringing about the problem of climate change (Skolnikoff 1990, Botzen et al. 2008, den Elzen et al. 2013, Matthews 2016). The longevity of greenhouse gases in the atmosphere means that emissions at one point in time contribute to climate change for tens and even hundreds of years into the future, which means the history of emissions becomes an important factor in assigning responsibility for dealing with present and future climate change. Although the exact proportions of each country's contribution to greenhouse gas levels in the atmosphere varies with methodological choices (Skeie et al. 2017), it has been established by numerous studies (Baumert et al. 2005, Höhne and Blok 2005, Botzen et al. 2008, den Elzen et al. 2013, Matthews et al. 2014, Ekholm and Lindroos 2015) that developed countries have contributed disproportionately greater greenhouse gas emissions into the atmosphere during their process of industrialisation. This pervasive aspect of the climate change problem is recognised in a concept widely referred to as "historical responsibility" (Page 2008, Humphreys 2014), which has formed the basis of numerous burden-sharing proposals, discussed further in the next section.

An additional core dimension to climate justice is participation, since the global nature of climate change ensures that the equity and effectiveness of responses to it are bound up with global decision-making institutions and processes. Participation in these processes remains distinctly unequal, both because developed countries have long dominated the creation and operation of global governance institutions, and because developing countries have far fewer resources to devote to delegations and representatives in multilateral policy fora (Okereke 2018). There are many hundreds of international environmental agreements in place and hundreds more bilateral agreements (Mitchell 2003); participation in this governance system places heavy demands on financial and human resources, particularly when many countries lack capacity to implement and enforce them (VanDeveer and Dabelko 2001, Najam et al. 2006, p. 36). When time, funding and knowledge of techniques to engage local populations in climate change and development planning are already limited (Bizikova et al. 2013, Castán Broto et al. 2015), increasing expectations for taking climate action compounds the potential that top-down international policy will make existing inequalities and injustices more severe.

Furthermore, communities, indigenous peoples and regions are affected by environmental issues like climate change in specific ways, yet have very little access to the global level of governance institutions where policies that govern the management of such environmental issues are decided (ISET 2010, Okereke and Charlesworth 2014), compounding major disparities in negotiation delegates from the Global North and South. Scholars have articulated the injustice associated with unequal access to and participation in governance processes (Müller 2001, Newig and Fritsch 2009, Grasso and Saachi 2011), and several argue that it is imperative that participation is made more inclusive and dynamic, or "democratised" (Schalatek 2012, Stevenson and Dryzek 2012a, 2012b, 2014, Carrozza 2015). It is in this wider context of distinctly unequal contributions to the climate change problem and experience of its effects, and a history of unequal access to governance institutions and processes, that climate finance policy and the UNFCCC policy process must be understood; if climate finance is a burden that must be borne, perspectives on sharing those burdens will inevitably influence states' material interests and the attitudes they bring to policy negotiation (Lange et al. 2010, Grasso 2011).

2.2.3 Climate justice and burden sharing

Climate change presents a particularly fiendish challenge for philosophers and policy makers alike, because the breadth and extent of the changes that will be required to respond effectively to climate change will necessarily involve virtually innumerable individuals, industries and governments, entailing enormous cost and effort (Tol 2009). As understanding of these implications grew through the 1980s and 1990s, attention turned to how the financial burdens of climate change action should be distributed. Scholars quickly began to apply existing moral or legal principles to climate change, such as the "polluter pays" principle previously associated with traditional forms of environmental damage such as chemical spills, where the damage and the origin of the pollutants are more easily attributable than with climate change (O'Riordan and Cameron 1994). Philosophers have gone further, exploring the implications of historical responsibility and the moral foundations on which the international response should be built; along with the "polluter pays" principle, the "beneficiary pays" and "ability to pay" principles articulate varying perceptions of the past and current emissions that have caused climate change, and the wealth and other benefits that developed countries have accumulated as a result of carbon-based industrialisation (Shue 1993, Caney 2005, 2010, Page 2008, 2011, Jamieson 2010, Meyer and Roser 2010, Moellendorf 2012). In the context of these principles and historical emissions, philosophers have also explored approaches to the communal nature of the

Earth's atmosphere and how to divide future emissions between nations and populations (Neumayer 2000, Hayward 2007, Caney 2012).

Other scholars have explored the implications of these moral debates and frameworks for global governance and how to apply them in policy, with a focus on which countries should bear the burdens of effort and funding, and the extent to which developing countries, already more vulnerable and less wealthy, should be expected to contribute funding and other efforts (Friman and Linnér 2008, Müller et al. 2009, Roberts and Parks 2009, Ekholm et al. 2010, Schlosberg 2012, Sachs 2014, Pattanayak and Kumar 2015, Underdal and Wei 2015). Such work has been accompanied by policy proposals for assigning future emissions rights (Kanitkar et al. 2010, Baer 2013) and for applying principles of justice to questions concerning how climate finance should be obtained, handled and distributed (Dellink et al. 2009, Barrett 2013a, Vanderheiden 2015, Schalatek and Bird 2016). Developing countries, meanwhile, have long been concerned that the financial and other burdens of climate change action and low-carbon development will curtail their development (Pettit 2004, Collier 2015). Constrained by unequal economic relationships and North-South power imbalances (Roberts and Parks 2009), countries in the Global South simply have not developed equivalent capacity in their governments and public sectors (Eakin and Lemos 2006). This combines with poor socio-economic conditions and already-fragile ecosystems to leave them reliant on external assistance, usually from the Global North, to bolster their response to climate change alongside existing sustainable development efforts (Tuffa et al. 2012).

2.2.4 International political economy and climate justice

International political economy approaches connect with both climate justice and finance by interrogating how links 'between which actors are principally responsible for generating most harm and which benefit most from the wealth it generates, and those charged with delivering collective societal responses to the threat of climate change' shape governance processes and outcomes (Newell 2015, p. 33). Political economists have argued that climate finance in developing countries 'has the potential to transform traditional aid modalities' (Tanner and Allouche 2011, p. 3), but the benefits of climate finance and the impact of existing international institutions that distribute funding are highly uneven (Newell and Mulvaney 2013). However, only a small number of scholars have directly addressed political economy perspectives on the UNFCCC climate finance policy process, integrating the connections between systemic ideologies and histories at the high level, and environmental problems and inequalities at the local level (Harmeling and Kaloga 2011, Tanner and Allouche 2011). There is a lack of investigation from these perspectives into how systemic

power imbalances have become part of the rules and structures within the UNFCCC, and how these internal structures shape the way policy reflects expectations of climate finance held by actors based on their positions as donors or those more responsible, and recipients or those less responsible.

Stepping back, political economists have argued that the earlier and more extensive industrialisation and economic development in the Global North, which brought about the vast increases in greenhouse gas emissions that have caused climate change, stems from and has reinforced unequal economic and power relationships between countries in the North and South (Newell 2005, Roberts and Parks 2007, Okereke 2009). Scholars also point out that it is this economic history that leads environmental impacts to be experienced most severely by vulnerable communities in countries with the least state capacity to regulate business activity to prevent environmental damage (Martinez-Alier 2002, pp. 10–11, White 2013). These histories and North-South divisions, with facets of injustice such as trade barriers (Garcia 2000, Gonzalez 2006) and colonialism (Agarwal and Narain 1991, Joshi 2015), are captured in concepts such as unequal and combined development (D'Costa 2003, Bieler 2013) and ecological debt (Rice 2009, Roberts and Parks 2009). These are all contributory factors shaping developing countries' perspectives on and expectations of climate finance and how it relates to justice (Gupta 1999, p. 202, Kandlikar and Sagar 1999). Political economists argue that these histories and perspectives are manifest in the North-South division that has characterised UNFCCC climate finance negotiations since they began (Paterson and Grubb 1992, Gupta 1999, Williams 2005, Okereke 2010, Parks and Roberts 2010), but have not gone further to investigate mechanisms and institutional factors that contributed to these factors becoming so prominent and persistent over time.

Climate change and injustice has also been addressed from the perspective of development studies and more recent political economy research into the climate and development intersection (Newell 2004, Naess et al. 2015). With southern governments often severely constrained in their ability to fund climate change activities (Rogers 2010), scholars stress the importance of considering policy at different governance levels (Adger et al. 2005) and the identification of existing path dependencies that are impeding widespread adoption of a resilience-based approach that can help integrate climate change into existing development assistance systems (Burch 2011, Carrapatoso and Kürzinger 2014, pp. 283–284). Global political ecology scholars have similarly begun to address the greater pace and scale that climate change is bringing to how people's vulnerabilities are affected by and related to political and economic exclusion (Boyd and Juhola 2009, p. 798). In the context of broader histories and socio-political context, this has involved engaging with the role of power and control, actors' positioning and social construction of environmental problems in shaping

how top-down governance systems are resistant to change (Armitage 2008). This perspective highlights the effects of actions and output at higher levels of governance on localised conflicts, vulnerabilities and environmental conditions, potentially exacerbating North-South inequalities and power differentials (Newell and Bumpus 2012), but again there is a lack of research into institutional design and the development of policy structures and their influence on perpetuating these North-South inequalities.

2.2.5 International relations, politics and climate justice

Paterson (1996a, p. 181) highlighted relatively early that financial transfers from the Global North to the South must be integrated at the core of climate negotiations and forging political agreement. However, while these transfers and associated distributive justice have been part of the literature on politics and equity in the climate governance regime (Paavola and Adger 2006, Rübbelke 2011, Pittel and Rübbelke 2013, Prys and Wojczewski 2015), there has been relatively little detailed analysis of the climate finance policy process itself. Scholars have argued that a lack of ethical basis for climate finance and the influence of neoliberalism within climate governance has limited the realisation of initial expectations of these financial transfers (Okereke 2010, p. 468). While financial (and other forms of) assistance was integral to the differentiated responsibilities encapsulated in the common but differentiated responsibility principle (CBDR) (Matsui 2002), without clear institutional rules to operationalise CBDR, receipt of climate finance has been linked to developing countries accepting greater responsibility for taking action in response to climate change (Vogler 2016), consistent with recent moves to transform the UNFCCC system into one where sharing the burdens of the global response is determined by voluntary commitments made individually by each country, diluting the differentiation between developed and developing countries (Okereke and Coventry 2016). Such studies often indicate that institutional design and rules have influenced the political and justice implications of finance as an aspect of climate governance, but detailed study of these institutional mechanisms and the extent to which they have influenced policy outcomes has not been undertaken.

More broadly, international relations scholars have argued that justice, or “equity”, must be acknowledged if effective co-operation between states over global environmental issues is to be forthcoming (Young 1989, Albin 2001). The philosopher Shue (1992) also notably argued that justice is unavoidable when states come together to negotiate on climate change. Incorporating justice or equity into international relations has not been straightforward, however; both neorealists and neoliberal institutionalists traditionally see self-interest as the basis for state action and thus often put aside questions of identity- and interest-formation and ‘normative ambitions’, although some liberals do seek to incorporate

these processes (Falkner 2019, p. 2). Constructivists, meanwhile, have sought to explain the social construction of identities and interests and the discursive and intersubjective processes by which states derive meaning from a complex world and develop international governance regimes (Wendt 1992, Haas 2002, p. 74). While states might pursue particular conceptions of equity through their actions within institutions, and indeed scholars have explored the self-interested use of equity in climate negotiations (Lange et al. 2010), realists attribute state behaviour in relation to equity-related issues such as burden-sharing to rational intentions to "win" and avoid "losing" (Lacy 2005). In contrast, constructivists see normative structures as a foundational element of international relations through their influence on identity- and interest-formation, which naturally leads to actors seeking to express justice claims in the international political arena but also contributes to political stalemate when these claims conflict (Paterson 1996b, p. 185).

The notion that different perceptions of equity contribute to political disagreement and stalemate within the UNFCCC has been a central theme of scholarship on climate justice and politics. A wide range of scholars have presented numerous conceptions of how justice should be incorporated into institutional processes and how the collective interpretation of justice principles should be adjusted to facilitate political agreement and more effective governance (Weisslitz 2002, Paavola 2007, 2008, Parks and Roberts 2008, Okereke and Schroeder 2009, Boyte 2010, Cameron et al. 2013, Zhang and Shi 2014). Other scholars have shown that, despite some acceptance amongst participants that different countries bear different responsibilities for climate change (Miguez 2002), the different conceptions of justice held by the North and South in general, and individual countries in particular, have proven impossible to align within UNFCCC negotiations (Okereke 2010). Much climate justice and politics literature focuses on the CBDR principle, which articulated an approach to equity in the UNFCCC Convention (Rajamani 2000, Okereke 2008, Müller and Gomez-Echeverri 2009). Despite CBDR becoming prominent within academic discourse and negotiating rhetoric, the ambiguity of the principle itself and the institutional rules based on it have contributed to disagreement between developed and developing countries as they seek policy outcomes consistent with their varying interpretations and ability to exert power over other actors (Harris 1999, Mickelson 2000, Honkonen 2009, Bortscheller 2010, Deleuil 2012, Brunnée and Streck 2013). These scholars have not, however, investigated the influence of institutional design, structures and development on rules and interpretations within the policy process and the justice of its outcomes.

2.2.6 North-South division in the UNFCCC

A broad history of colonialism, domination and exploitation characterises the North-South relationship and has shaped the last forty years of global governance negotiations (Engberg-Pedersen 2011). These legacies and the associated inequalities of historical responsibility, disproportionate effects and participation in governance processes combine to imbue climate change with a strong sense of injustice that shapes the way developing countries relate to the problem and interact with developed countries (Bulkeley and Newell 2015, chap. 2). This has evolved from ongoing debate over the relationship between protection of the environment and facilitation of development that dates back to the UN Conference on the Human Environment in 1972 (Okereke 2009). The North-South dynamic emerged in the process of creating the Convention, in which developing countries had to battle against the economic strength of donor countries and fight to secure the outline of a finance system that will protect their interests, while at the same time having to counteract attempts by developed countries to minimise the impact of North-South climate finance obligations on their domestic economies and draw developing countries into sharing responsibility for emissions cuts (Hyder 1994).

Developing countries realised early on that the North's focus on environmental issues distracted attention from poverty, food insecurity and the myriad other problems they face, and even challenged the basis of the development that was the primary means to solve these problems (Najam 2005). This challenge has led developing countries to pursue an agenda focused on their development priorities within environmental negotiations, with finance a key concern, and contributed to the formation of a longstanding negotiating coalition of developing countries primarily built on a Southern identity and perspective (Williams 2005). How to facilitate development in the South (and continued economic growth in the North) while reducing global emissions, and how to fund these simultaneous objectives, has been part of the discussion about burden sharing in climate change policy for over two decades (Baer 2013). The right to development has been suggested as a means to formalise the financial and development needs and expectations of developing countries in the face of global restriction on greenhouse gas emissions (Löfquist 2011), but some developed countries reject the notion (Roberts and Parks 2007, p. 25).

Climate finance negotiations are rooted in this North-South division, which has been perpetuated across the UNFCCC and generated significant disagreement over how an international response should be organised (Parks and Roberts 2008, Hoffman 2013). Represented most prominently by the G77/China, which now has 134 members, developing countries have repeatedly highlighted the responsibility of developed countries as the reason why developed countries should take the lead on climate change mitigation and

transfer money and technology to developing countries to facilitate their adaptation and mitigation (Bodansky 1993, pp. 502–503, Hallding et al. 2013). Developing countries also argue that global governance must link climate change to sustainable development, human rights and key measures of human security (Okereke 2006, Klinsky and Winkler 2014). In doing so, developing countries point to evidence suggesting that climate change has the potential to reverse progress that has been made in reducing poverty in many parts of the developing world (Agrawala 2004, Mcmichael 2009, Stern 2009b, chap. 1), and 'exacerbate existing interlinked problems of social inequality, ecological degradation, and conflict over natural resources' (Boyd 2014, p. 342).

Developing countries have not maintained or demonstrated aligned perspectives throughout the course of UNFCCC negotiations, however. From its earliest stages, the G77/China has featured tension or outright opposition between countries of the Alliance of Small Island States (AOSIS) and the Organization of the Petroleum Exporting Countries (OPEC). The former are very vulnerable to the effects of climate change and tend to support emissions reductions, while the latter are concerned with the economic impact of measures to respond to climate change and reduce greenhouse gas emissions and often obstruct such measures (Vihma et al. 2011, p. 316). More recently, the economies and emissions of larger developing countries have grown markedly and their positions have diverged from each other and the G77; the G77 has advocated greater granularity in differentiation between all countries based on 'current socioeconomic realities' rather than a simple North-South split, and the Independent Association of Latin American and Caribbean Countries (AILAC) have pushed for ambitious climate change action at home and globally rather than waiting for Northern leadership (Ciplet and Roberts 2017, pp. 382–383). These divisions within the broader Southern coalition have usually concerned emissions reductions, a prominent recent example being the High Ambition Coalition formed during COP-21 in Paris in 2015 that succeeded in introducing the 1.5°C temperature limit target to the Agreement. In contrast, the G77/China's unity and the North-South division appear to be more resilient on the subject of finance even as developing countries such as China become finance donors themselves (Mauldin 2015, Dimitrov 2016, pp. 4–5).

The more expansive framing of climate change and connection to development has been challenged consistently by a discourse that focuses on the scientific and technical aspects of the problem and potential responses, and excludes the ethical and wider systemic implications of the problem (Cohen et al. 1998). Developed countries have propagated this more technical framing and sought to emphasise their greater financial and technical capabilities, while avoiding extensive discussion of what levels and forms of financial transfers would result from comprehensive fulfilment of their moral responsibilities

(Bodansky 1993, pp. 502–503, 2001, Okereke 2009). In general, the Northern perspective has prioritised the “effectiveness” of governance processes and institutions, thereby minimising attention given to Southern development priorities and perpetuating the North-South division and developing countries’ perception of exclusion from global governance (Najam 2005).

The longevity and depth of North-South divisions within climate finance negotiations have led scholars to highlight links between the systemic inequalities that are so central to the climate change problem and the extent to which climate policy can reinforce or simply fail to address inequalities at both the global and the local levels (Lemos and Boyd 2010), and illuminate the ways in which developed and developing countries’ approaches to policy discussions are likely to be affected by their worldviews and experience of these systemic inequalities (Parks & Roberts 2010). However, the ways in which these inequalities and differing perspectives have become part of institutional rule structures over time and contributed to the justice and politics of UNFCCC policy outcomes has not yet been studied systematically. As a broader trend of fragmentation amongst the Southern coalition in climate negotiations continues, this thesis can illuminate the evolving, or sustained, nature of Southern coalition within finance negotiations more specifically, adding to broader understanding of this aspect of climate politics.

2.3 Development of climate finance policy and key controversies

Climate finance is a key part of the UNFCCC’s governance remit and a policy area where North-South dynamics are highly visible; ‘fights over provisions on finance within the international climate regime have always threatened to ‘break’ the outcome of the negotiations as a whole’ (Obergassel et al. 2015, p. 257). Since the very concept of North-South flows of climate finance is based on principles of justice, the creation and implementation of policy necessarily involves debate and disagreement over how such principles should be interpreted and reflected. A deeper understanding of the place of climate finance at the heart of both the justice and politics of climate governance requires mapping of the key dimensions of controversy that have characterised the development of climate finance policy. Building on the justice issues and inequalities discussed in the previous section, this section will explore the broad landscape of funding for responses to climate change, explaining levels and forms of finance and how it is measured, the origins of the UNFCCC system in the more established and strongly-criticised development assistance system, and the key justice-related contestations within climate finance that have become threads within UNFCCC policy process.

2.3.1 Origins and structure of the UNFCCC and its policy process

Building a picture of the climate finance policy process and its controversies requires an understanding of how the UNFCCC originated and the form it takes, and an understanding of climate governance as a focal point where the aims of and action on environmental protection and sustainable development met and, for many, came into conflict. It is from this nexus that climate finance policy commenced. A broad and complex landscape of climate governance has evolved all over the world at multiple scales in the 27 years since the UNFCCC was created (Adger 2001, Bulkeley and Newell 2015), but it remains at the centre of global climate governance (Lövbrand et al. 2017, Jordan et al. 2018), with its policies shaping the rules and objectives of the climate governance system as a whole (van Asselt and Zelli 2018). The UNFCCC's creation followed a period of developing scientific consensus and understanding about the implications of climate change, within a broader landscape of increasing political attention to global environmental problems through the 1970s and 80s, stimulating initiation of a multilateral response (Bridgewater and Bridgewater 2005, Vanderheiden 2008, chap. 1, Gupta 2010, Harris 2013, chap. 1). Following a treaty on the ozone layer, the global climate governance regime was initiated at the UN Conference on Environment and Development (UNCED) in 1992 alongside the UN Convention on Biological Diversity and the Statement of Forest Principles.

The UNFCCC as a governance institution consists of a framework treaty, which created a forum for bringing countries together to discuss and agree how to deal with the climate change problem, leading to production of subsequent "protocols" that contained policy and commitments to stimulate action in member countries (Parties). The convention-protocol approach was used for the Vienna Convention on the ozone layer and subsequent Montreal Protocol of 1987, which was (and remains) seen as a particularly successful example of multilateral co-operation to deal with a global environmental problem, so it consequently influenced this choice of legal structure for climate change governance (Oberthür 2001, Ostrom 2008, Hale et al. 2013, p. 254). The treaty-based format of the UNFCCC means its policy process centres upon a negotiating forum where all Parties engage with each other; scholars have argued that the consensus-based format of this forum, which was pushed by developing countries in the interests of maximising their participation in the governance process, does provide less influential countries with a means to make their voices heard (Okereke 2018), but others have pointed out that this format can be both ineffective and unjust (Vogel 2014, p. 20) and means that 'decisions thus reflect the will of the laggards' (Kuyper et al. 2018, p. 345).

Increasing political attention to environmental problems coincided with increasing attention to the relationship between human progress and the environment, which

contributed to emergence of the concept of sustainable development to encapsulate the need to consider the environment and future generations in management of the planet (Bodansky and Rajamani 2018). Sustainable development was intended to balance the different priorities of richer and poorer nations towards environmental protection and economic growth, while giving attention to the needs of future generations and the financial implications (Clark 1989). This was accompanied by calls to consider how institutions can centralise and coordinate the international response to global ecological issues by generating sufficient finance and changing behaviour in the context of fostering sustainable development (Brundtland 1989, Ruckelshaus 1989). The need for action by developing countries to reduce their vulnerability to the effects of climate change and increase their ability to recover, comes in addition to significant existing needs to reduce poverty, increase education and healthcare provision, and generally improve standards of living and life expectancy (Tanner and Horn-Phathanothai 2014). As a result, climate finance is required to allow developing countries to increase their resilience to climate change while at the same time pursuing low-carbon development (Okereke 2014). Different perspectives on sustainable development and environmental protection, largely with a North-South split, were prominent from the outset of negotiations leading up to creation of the UNFCCC (Davidson 1992, Dasgupta 1994, Hyder 1994, Rahman and Roncerel 1994) and developing countries integrated requests for "new and additional" financial resources into the policy positions they formulated from the earliest stages of negotiations over the institutional creation process (Goldemberg 1994, p. 176).

2.3.2 Climate finance and the history of development assistance

Planning, prioritising and funding action on climate change adaptation and mitigation in developing countries has developed as part of wider and ongoing discussions about achieving efficient, effective and equitable allocation of development assistance (Haites 2011), so the climate finance policy process should not be viewed in isolation but instead as a product of and influenced by the development assistance system. Development in the Global South has been a field of research, policy and action since the 1950s, extending successful post-war reconstruction in Europe to ambitions to advance industrialisation in poor countries (Michaelowa and Michaelowa 2007a), underpinned by ethical arguments about philanthropy and responding to poverty and other inequalities of wealth, health and quality of life (e.g. Singer, 1972). However, development assistance has always had other purposes and objectives mixed in with "noble" intentions to facilitate the economic convergence of wealthier and poorer nations, such as continuation of influence in former colonies, the "race for influence" in the South that formed part of Cold War geopolitics, and

counteracting the most severe humanitarian consequences of structural adjustment policies imposed by donor-dominated global financial institutions (Severino and Ray 2009).

While aid transfers exceed US$1 trillion since the 1940s and are widely perceived as constructive and successful in improving many areas such as child mortality, access to clean water, disease control, agricultural productivity and infrastructure construction (Therien and Lloyd 2000), recipient countries have long criticised the development sector from operational, conceptual and political perspectives. Development assistance is associated with debt crises in developing countries, imposition of "structural adjustment" and other top-down fiscal policies by donor countries and organisations, and a continued lack of success in bringing about sustained and sustainable growth across the Global South (Easterly 2007). Donors have always been concerned with 'criteria for the allocation of aid among recipients, and the means for controlling its use' (Chenery and Strout 1966, p. 726), and it is widely known that the North and other more recently-industrialised Asian countries did not achieve development through the policies and institutions that donors have consistently advocated or insisted upon (Chang 2003).

This problematic history has fostered Southern distrust of Northern governments and institutions, with perceptions present long before the UNFCCC that the global system prevents rather than facilitates Southern development and that developed countries would use climate change to divert funding from development, the primary concern of developing countries, towards environmental protection (Nitze 1994, p. 196). The close connections between UNFCCC climate finance and the established network of international development institutions, with their historic reputation for dominance by more powerful developed countries and a lack of communication and co-operation when designing and implementing development policy, are a point of concern for many NGOs and developing countries in receipt of climate finance (Bird et al. 2011, Pashley 2015). Some scholars argue that climate finance perpetuates the current unequal development paradigm, allowing developed countries to preserve Southern resources to use for Northern consumption and bolstering neoliberal notions of human control over the environment (Mcmichael 2009).

2.3.3 The finance gap

While both the scientific and normative bases of climate finance calculations remain open to debate, it is clear that the need for finance in developing countries runs to hundreds of billions of dollars per year (see Section 2.2.1 above). In the context of these requirements, the amounts of finance pledged and delivered by developed countries within the UNFCCC have been a key area of contestation within the policy process, once again along North-South or contributor-recipient lines. Reported public climate finance flows from developed to

developing countries averaged only an estimated US$41 billion per year in 2013-14, although such estimates always come with the caveat that aggregated sums may not be accurate due to the difficulty of avoiding double-counting (UNFCCC Standing Committee on Finance 2016, p. 60). The difference between the funding flows in evidence and the levels required by developing countries has come to be known as the "finance gap" (Flåm and Skjærseth 2009, UNEP 2016). Overall, the broad landscape of climate finance has been assessed as inadequate to meet the goals of keeping global temperature rise under 2°C (UNFCCC Standing Committee on Finance 2014, para. 173), and climate finance remains far below levels necessary to reassure developing countries that developed countries will fulfil the commitments they have made, let alone that developing countries' needs will be met (Pickering, Jotzo, et al. 2015). Developing countries perceive developed countries as having repeatedly failed to live up to their past commitments on provision of development assistance, with funding promises reduced or conditions added; this behaviour has generated a lack of trust, leaving developing countries doubting that developed countries will behave differently with climate change finance (Ghosh and Woods 2009).

Within the policy process, no quantified finance targets were adopted in the Kyoto Protocol in 1997, even as clear emissions targets were adopted, and it simply reiterated expectations of financial transfers and incremental costs included in the Convention. Although climate finance remained at the heart of negotiations each year, it was not until the milestone COP-15 at Copenhagen in 2009 that clear pledges on levels of finance were agreed. The Copenhagen Accord (decision 1/CP.15, paragraph 8) committed developed countries to providing US$30bn of "Fast Start Finance" in the 2010-2012 period, balanced between mitigation and adaptation, and to 'a goal of mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries.' These concrete figures were widely seen as a significant step forward for climate finance (Prys and Wojczewski 2015), even as the COP itself failed to live up to extremely high expectations and was derided as a political failure (Bodansky 2010, Dimitrov 2010, Carter et al. 2011). The Paris Agreement (decision 1/CP.21, Annex) completed at COP-21 cemented a new post-2020 climate governance regime, founded on agreement in the Copenhagen Accord that all countries would be engaged in mitigation and adaptation action and moving past the strict North-South differentiation of expectation from the Kyoto Protocol (Falkner et al. 2010, Okereke and Coventry 2016). Under this new regime, each country submits a voluntary Nationally Determined Contribution (NDC), setting out commitments according to their chosen form, baselines and timelines. The NDC system has little to ensure that finance pledges will be sufficient to meet the needs of developing countries, match any view of equity, let alone a

Southern perspective, or actually be delivered (Hedger and Nakhooda 2015, Kharas 2015, UNEP 2015, Ellis and Moarif 2016, Peake and Ekins 2017).

2.3.4 Finance sources

In examining the finance gap and potential methods or mechanisms for overcoming it, several scholars (Fankhauser et al. 2016, Bowen et al. 2017) report the limitations associated with public or governmental sources. In order to understand the significance of this, it is necessary to outline the landscape of funding sources and channels. Bilateral public funding involves financial transfers directly from one government to another or distributed directly to projects by state development/aid agencies. Multilateral public funding involves governments transferring money to multilateral development banks (MDBs) and dedicated climate change-specific funds, which go on to make distribution decisions themselves. MDBs and bilateral finance institutions (development banks set up by single nations) account for the majority of public climate finance flows, with bilateral flows for both mitigation and adaptation reaching US$23bn and multilateral flows through MDBs over US$14bn in 2013 (Buchner et al. 2015). In comparison, the OECD (2015) reports that the GEF, the Adaptation Fund and the Special Climate Change Fund (SCCF), the main funds within the UNFCCC system at the time, distributed around US$1bn in 2013, giving a clear indication of the smaller scale of flows within the UNFCCC system. The UNFCCC policy process must be considered in the context of the broader climate finance system dominated by MDBs and bilateral agencies that have a reputation for being donor-dominated, ineffective in distribution of funds, and lacking transparency and representation from recipient countries in their governance and operation (Tan 2008, Lemos and Boyd 2010, p. 103), but the mechanisms whereby these influences shape institutional development and the UNFCCC policy process have not been studied in depth.

Private sources of finance involve flows that do not originate from governments or state agencies. There are vast asset reserves held all over the world, which can be channelled into investments or MDBs by businesses and portfolio investors such as pension funds. Many developing countries and NGOs focus on public sources of finance as the only means for developed countries to meet obligations to account for their historical responsibility and meet demands for climate justice (Knoke and Duwe 2012, p. 23). However, public finance accounts for a decreasing proportion of overall climate finance flows while private sources are increasing (Buchner et al. 2017) and there is considerable discussion of the further growth potential of private climate finance (Reyes 2012, Frisari et al. 2013, Stadelmann et al. 2013, Pauw et al. 2015, Cseh 2019). Across the climate finance sector, the increasing drive to harness private sources is often associated with leveraging co-benefits that involve some

involvement of public bodies and/or money alongside private investments (Reyes 2012, Bulkeley and Newell 2015, pp. 55–56). In the absence of an agreed definition of or criteria for UNFCCC climate finance, developed countries have embraced private sources as part of articulating their commitments to provide climate finance within the UNFCCC policy process (Stadelmann et al. 2013). Developed countries are increasingly highlighting "realistic" limits to public finance from developed country governments, and the associated push towards expanding the investment opportunities available to and taken up by private and institutional investors has become a prevailing trend both within the UNFCCC policy process and across the broader climate finance landscape (Persson 2011, p. 4, Buchner et al. 2017).

This trend may reflect political and financial realities, but it highlights the challenge of using climate finance as a tool for furthering international justice (Barrett 2013b); private finance raises questions about the fairness of who provides the finance, how benefits are distributed and how decisions are made (Keenan et al. 2019, p. 3). Private sources of climate finance are associated with a perspective that prioritises amounts over the fulfilment of moral obligations, and the primary role of profit in private climate finance makes it controversial to the many developing countries and NGOs who consider that climate finance should primarily be driven by public finance in order to meet the restitutive justice obligations generated by historical responsibility for climate change (Müller 2008a, Pauw et al. 2015, Weikmans and Roberts 2016). A Southern perspective seeking to prioritise and meet the needs of the most vulnerable nations and communities may be wary of finance with profit generation as its core function (Richardson 2009, p. 616, Pereira et al. 2013), particularly since private finance has been criticised 'for unclear accountability mechanisms, opportunities for elite capture, and limited capacities to provide consistent and sustained funding flows over time' (Keenan et al. 2019, p. 2). These contrasting perspectives on finance sources and justice, and developing countries' experience of operational inequalities and unequal North-South/donor-recipient relationships and power, are brought by states into negotiations (Roberts 2009), but the mechanisms whereby UNFCCC institutional design and development has reinforced the inequalities or overcome them is not yet understood.

2.3.5 Defining and tracking climate finance

With the finance gap a product of contrasting North-South perspectives on what levels of climate finance are necessary and possible, it is natural that establishing exactly how much climate finance is flowing from the global North to the South should be of concern to both Northern and Southern countries, albeit from different perspectives. This is easier said than

done, however, and central to the challenge is the difficulty of deciding exactly what climate finance is. At the most basic level, 'a flow of climate finance should reduce emissions or strengthen adaptive capacity and resilience' (Bodnar et al. 2015, p. 5). It is necessary to move beyond this and find a more detailed definition of climate finance for use in an operational context because climate finance must be tracked and measured so donors, recipients and other governance and civil society stakeholders can manage what types of and how much climate finance should be and are already flowing, and so those that pledge funding can be held to account (Stadelmann et al. 2011).

The UNFCCC is in a central position from which to oversee funding flows and, in theory, has the authority to require the provision of information, sufficient standing to publish accurate findings, and the ability to reproach those determined to have provided insufficient finance. However, a definition of climate finance has never been agreed within UNFCCC policy (Gomez-Echeverri 2013, p. 635, Pickering, Jotzo, et al. 2015, p. 41) so monitoring and accountability of this nature, based the question of how to define climate finance, is a central and unresolved area of contestation within UNFCCC climate finance (Lombo et al. 2016, Gupta and van Asselt 2019) that has 'contributed to a continuous erosion of trust between Parties in international climate negotiations' (Weikmans and Roberts 2019, p. 97). Definitions that underpin climate finance play an important role in determining in whose interests policy concerning such monitoring and accountability functions is formed, and how UNFCCC finance policy engages with broader questions of justice.

Climate finance can include finance obtained from public sources, i.e. national budgets, from private funds or investments, and from collaborations between public sector and private funds (Buchner, Falconer, et al. 2011, p. 1). These categories can be further broken down into many sub-categories covering a diverse range of contributors (Gomez-Echeverri 2013). In addition, climate finance can be delivered in different ways; funds can be provided as grants without expectation of repayment, or as loans with various repayment requirements. Recipients would expected loans to be offered on terms more favourable for them than commercial loans, but the degree of "concessionality" varies and is the subject of considerable debate, as is the question of whether loans of any type are appropriate when climate finance is viewed from the perspective of restitutive justice (Baudienville 2009). Accounting differences are also relevant, since funding only the additional costs over and above business-as-usual spending (incremental costs) will lead to different amounts being counted than when the total costs of projects is included (Olbrisch et al. 2011). Funding objectives are also important, with debate over whether any spending that has meaningful co-benefits for climate change should be considered valid, or only finance explicitly targeting climate change (Bodnar et al. 2015).

Seeking to determine which parts of the increasingly diverse landscape of climate finance should be included in UNFCCC policy highlights the differing perspectives on the role and nature of climate finance taken by developed and developing countries; the relationship between these perspectives, the behaviour of countries in the policy process, and the outcomes produced by climate finance policy process is not yet clear. Many in the Global South argue that climate finance is, implicitly or explicitly, compensation for causing the climate change problem, invoking historical responsibility and the perception that finance is an obligatory part of rectifying the damage developed countries have caused (Williams 2005, Grasso 2011). From this perspective, climate finance flows must be judged on whether they can be considered to constitute part of the restorative acts expected by developing countries (Schalatek 2012). Alternatively, if climate finance is a voluntary or altruistic gesture of support for less wealthy countries rather than a response to specific obligations generated by historical responsibility for climate change, the overall sums transferred are more significant than the source, motivation and concessionality of climate finance. The justice implications of this complex policy area have not been resolved within the UNFCCC and considerable contestation remains surrounding the role and expectations of different types, sources and delivery mechanisms of climate finance in meeting developed countries' climate finance responsibilities (Pauw 2017).

2.3.6 Additionality

From the outset of climate governance, developing countries have raised concerns about whether flows labelled or presented as climate finance are additional to existing development assistance, Official Development Assistance (ODA – development assistance reported within the OECD system), foreign direct investment, and other North-South funding that would occur without the presence of climate change (Stadelmann et al. 2011). This debate is encapsulated in the term "additionality", which is seen by developing countries as a conceptual safeguard to provide assurance that redistribution of wealth from the Global North to South as part of the global response to climate change should play a net positive role in the pursuit of global justice and wider poverty reduction and development goals (Halimanjaya 2015). The differentiation between ODA and climate finance is not straightforward, because there is great potential for overlap between climate change and development objectives and they are not mutually exclusive in terms of projects and initiatives that receive funding (Klein et al. 2007). Lack of clear rules and policy to govern additionality has led to a resulting lack of trust between developing countries and developed countries over funding commitments, which has remained a consistent part of the UNFCCC climate finance policy process (Roberts et al. 2010, Stadelmann et al. 2010).

The connection between climate finance and development assistance is increasingly significant as consensus grows that actual and potential impacts of climate change must be integrated systematically into development activity (Adger et al. 2003, Birkmann and von Teichman 2010, Carrapatoso and Kürzinger 2014); many scholars argue in favour of "climate-resilient development" and "mainstreaming" climate change into development policy at the local (Beg et al. 2002, Swart et al. 2003, Klein 2010, Castán Broto et al. 2015) and global levels (Cohen et al. 1998, Michaelowa and Michaelowa 2007b, 2007a, Ngwadla 2013, Klinsky and Winkler 2014). The connection between development and climate change adaptation means adaptation is often the focus for this integration (Huq et al. 2005, Ayers and Dodman 2010, Rogers 2010, Ensor 2011, Smith et al. 2011, Nagoda 2015). In this complex policy environment, the overlap between and momentum towards integration of development and climate change planning means that a set of rules or guidelines for how to navigate determination and monitoring of additionality, as well as baseline figures from which to calculate subsequent finance flows, are increasingly important for evaluating the benefits developing countries receive from climate finance and whether it meets their needs (Deutschke and Michaelowa 2006, WRI 2010).

Reallocating existing ODA to climate finance can mean that overall levels of redistributive funding decrease or that climate finance commitments involve a reduction in ODA (Roberts and Weikmans 2017). Reallocation of funds can also affect patterns of receipt, because in the search for emissions reductions, finance that might have gone to the poorest countries can instead be given to larger, more industrialised developing countries with more straightforward and/or larger-scale projects available (Halimanjaya 2015). However, the OECD's ODA system, which tracks much of the development assistance provided by developed countries, allows ODA funding flows to be labelled as climate finance where the projects have a climate change-related component or benefit (OECD-DAC 2011), with guidelines for use of the markers but no precise methodology to ensure accuracy and consistency (OECD 2011). This means that the donor countries' own reporting system mixes development and climate change funding and prevents rather than facilitates transparency and verifiability (Schalatek 2010). Many developing countries reject the inclusion of climate finance in ODA reporting, arguing that since climate finance represents developed nations fulfilling moral or treaty obligations it should be categorised separately to development and other redistributive finance (Stadelmann et al. 2010, p. 4).

An important component in the additionality debate comes from the broader history of development funding, where a target for minimum development assistance contributions of 0.7% of developed countries' gross national income (GNI, more recently gross domestic product (GDP) is used) annually has been articulated by the UN General Assembly several

times since 1970, and reiterated in several subsequent meetings and treaties and as part of the Millennium Development Goals (WRI 2010). This target has gained considerable prominence among campaigners and NGOs, and developing countries see it as essential from both moral and practical perspectives (Eyckmans et al. 2013). However, Clemens and Moss (2009) argue that the 0.7% target constitutes a relatively arbitrary compromise based on what was considered politically feasible, that it bears little relation to a modern understanding of the global economy or the development process, and that it bases aid targets on the size of developed country economies rather than the needs and circumstances of recipient countries. Furthermore, developed countries have always remained in control of their own development assistance contributions, and none actually committed themselves to the 0.7% target until 2005, and even this was only offered by a small number of European governments as successive US administrations remained "averse" to such targets (Clemens and Moss 2009). The 0.7% target remains largely unfulfilled (Ayers and Huq 2009, Van Bilzen 2015).

Despite the many problems with the 0.7% target, it is commonly understood as a basis for additionality (Schalatek 2010, p. 6) and developing countries argue frequently in the UNFCCC policy process that only climate finance above the target should count as additional (Brown et al. 2010), but most developed countries consider this too difficult to meet since they do not currently reach the 0.7% commitment (Tirpak et al. 2010). Although guidelines are evidently needed, agreement has never been reached amongst the donor community within or beyond the UNFCCC, let alone amongst both developed and developing countries, on definitions or criteria to determine when funds are additional, and against what baseline additionality should be judged (Ballesteros et al. 2010, Weikmans and Roberts 2019). There remains little guidance and regulation to govern how climate finance should be differentiated from general ODA, with no firewalls in place to ensure that existing levels of ODA are preserved, and that all North-South climate finance constitutes additional transfer of wealth (Brown et al. 2012). This ongoing situation is clearly in line with a Northern-focused conception of justice in climate finance, highlighting the voluntary nature of contributions where donors control finance flows and seek to avoid definite moral obligations deriving from historical responsibility for climate change.

2.3.7 Funds and mechanisms

The various funds and mechanisms within the UNFCCC climate finance system are referred to as the financial mechanism, which was initiated in the Convention. The number and design of these funds and mechanisms, their governance and operations and the levels of finance they deliver have been the subject of ongoing and vociferous contestation in the

policy process. The most recent fund, the Green Climate Fund (GCF), is intended to deal with the majority of UNFCCC climate finance from now on, but the operation and oversight of the financial mechanism and its component funds remains greatly disputed within negotiations. Various scholars have reviewed the UNFCCC funds and the financial mechanism as a whole, arguing that various aspects of its governance, structure, operations and accountability must be improved to be both effective and equitable (Möhner and Klein 2007, Müller and Gomez-Echeverri 2009, Gomez-Echeverri 2010, Afful-Koomson 2015). Despite the ongoing contestation within negotiations and criticism from without, and the significance of the financial mechanism's structure and operation to any assessment of the justice and effectiveness of the UNFCCC system, there has not been a systematic investigation of the development of the financial mechanism and the impact of layers of policy and other institutional factors over time on how its funds have been created and overseen.

Reinforcing the relevance of prior histories and systems of development assistance, operation of the financial mechanism was initially entrusted to the Global Environment Facility (GEF), an existing fund set up in 1990 by the World Bank at the instigation of donor countries, with a remit covering a wide range of environmental problems (Young 2002b). Even from its earliest operations, developing countries raised concerns about donor dominance of the World Bank, potential conflicts of interest associated with the World Bank's role as GEF manager, and concerns that the GEF was beyond COP control and oversight (MacIlwain 1993, Fairman 1994, Gupta 1997, Vogler 2016). Concerns continued about the accountability of the GEF and the 'business-like' approach and 'economistic vision of development' used by the World Bank (Young 2002b, pp. 6–8, Gomez-Echeverri and Müller 2009), in line with developed country preferences and the prevailing neoliberal economic system. Concerns have also been raised about inadequate levels of adaptation funding and delivering disproportionate funding to countries with lower rates of poverty (Huq 2002, Möhner and Klein 2007, Mitchell et al. 2008).

Linking back to the nexus of sustainable development and environmental protection that was a core component of the North-South division that characterised the origins of climate governance (see 2.3.1 above), the GEF created a distinction between global and local benefits from climate change action, which led to a prioritisation of funding for mitigation actions rather than adaptation, with the former of more priority to developed countries and the latter to developing countries, as well as obscuring the responsibility held by developed countries to fund both areas (Gupta 1997, p. 101). Developing countries' interaction with the GEF proved difficult: 'institutional relations among implementing agencies and Participants have been vague and fluid during the pilot phase; lines of accountability have

been imprecise; and investment criteria have been difficult to understand' (Reed 1993, p. 201). Since then, COP oversight and guidance has struggled to deal with complaints that 'a genuine barrier to the operationalization of GEF projects is the long and complex procedure that has to be gone through before a project concept can reach the implementation stage' and that the GEF has inadequately scrutinised its operations (Ravindranath and Sathaye 2002, p. 189).

Despite the numerous and varied concerns raised by developing countries about the functions and governance of the GEF, it was given operational control of two new funds created at COP-7 in Marrakesh in 2001. The Special Climate Change Fund (SCCF) and Least Developed Countries Fund (LDC Fund) were both given adaptation-focused remits, in line with developing country pressure (Ciplet et al. 2013). However, in practice the SCCF and LDC Fund have remained subject to accusations of donor dominance over their design and operation, echoing concerns about the GEF itself (Mace 2005, Tanner and Horn-Phathanothai 2014). For example, GEF methods to determine the proportion of project costs that the LDCF and SCCF would fund (the incremental costs) led to larger projects receiving a greater share of funding support, and the potential for developing countries to have to act strategically to maximise funding (Möhner and Klein 2007, p. 15). Contributions to both funds are voluntary and its funding has remained significantly lower than would have been necessary to meet the needs of developing countries (OECD 2011, UNFCCC 2016).

The Kyoto Protocol was the first protocol to be agreed under the UNFCCC framework in 1997. Developed countries sought various mechanisms that would allow flexibility in meeting their emissions reduction commitments (Bodansky 2001); of these flexible mechanisms, the Clean Development Mechanism (CDM) is relevant to climate finance because it has created a flow of funds into developing countries for climate change mitigation projects. The CDM works with credits, known as "certified emissions reductions", which are generated by the creation of emissions reduction projects in developing countries and, once certified by an accrediting body, can be sold to developed countries for offsetting their emissions reductions obligations. The CDM has proven to be a consistently controversial scheme, however, with numerous studies arguing its governance has been ineffective and inequitable and the geographic distribution of its funded projects is uneven (Michaelowa and Michaelowa 2007b, Wara 2007, Okubo and Michaelowa 2010). Furthermore, CDM outcomes vary depending on the extent to which projects include community preferences and address capacity building needs (Mustalahti et al. 2012), and its projects have been accused of reinforcing local inequalities (Newell and Bumpus 2012). Overall, the CDM is widely seen as failing to deliver benefits to the poorest and most vulnerable and to facilitate sustainable development more broadly (Olsen 2007, Boyd et al.

2009), and the additionality of its funding over ODA is uncertain (Deutschke and Michaelowa 2006).

The Kyoto Protocol also created the Adaptation Fund. Initially placed under GEF oversight, the Adaptation Fund was only operationalised after the Kyoto Protocol came into force in 2005 and, in a notable departure from prior UNFCCC's other funds, has its own management board with representation from all regions, the LDCs and Small Island Developing States (SIDS), thereby avoiding many of the governance issues associated with the GEF (Ayers and Huq 2009). The fund is primarily funded through a 2% levy on emissions reduction credits issued to CDM projects, giving it a non-discretionary source of funds, again in contrast to the voluntary GEF, LDCF and SCCF (Tanner and Horn-Phathanothai 2014). The Adaptation Fund has pioneered more direct access to its funding, which allows qualified institutions within a recipient country, such as finance ministries, to deal directly with the Adaptation Fund rather than needing to go through an international organisation such as an MDB, with high administrative costs (Müller 2013, Yamineva and Kulovesi 2013). Bound up with efforts to close the finance gap, developing countries have made vocal calls for direct access to climate finance as a means to get around problems familiar from development funding and gain greater control over obtaining and distributing climate finance (Brown, Bird, et al. 2010, Harmeling and Kaloga 2011). In contrast to the controversial CDM, the Adaptation Fund has had the most positive reaction of the various UNFCCC funds, with commentators suggesting its innovative governance implies greater integration of justice principles and developing country preferences (Grasso 2011). Others have suggested that the fund can be regarded as a model for international adaptation financing (Horstmann and Abeysinghe 2011, p. 416), although, as ever, the justice and effectiveness of the fund's operations have not been without room for improvement (Persson and Remling 2014, Remling and Persson 2015).

The US$100bn pledge at COP-15 in Copenhagen in 2009 was made alongside the creation of a new multilateral fund to "mobilise" and distribute the funding. After early promise of an equitable operationalisation process with representation from developed and developing countries and NGOs, discussions became dominated by political disagreement and by divergent visions of the identity and focus of the new fund (Prys and Wojczewski 2015). Principles of CBDR and historical responsibility were sidelined and a proposed no-objection clause, which would have given groups adversely affected by potential GCF-funded projects a voice within the organisation, was moved out of the GCF governing body (Bracking 2015, Vanderheiden 2015). Northern perspectives dominated the creation of operational rules concerning private sector and other sources of climate finance, funding of full or incremental costs, distribution of funding, and the appropriate use of loans rather than

grants to deliver climate finance (Bird et al. 2011, Klein and Möhner 2011, Yamineva and Kulovesi 2013). Other scholars have pointed out that a lack of definitions for "climate finance" and "private finance" remains an obstacle to constructive agreement within the GCF's governing body (Fridahl and Linnér 2016).

2.4 Conclusion

Responding to climate change is sure to entail enormous financial costs, and there are myriad normative, political and practical challenges involved in generating and distributing such large sums of money. This chapter has shown that questions over distribution of these financial burdens and governance of finance flows are central to the injustice of the climate change problem itself, and the policy questions that the climate governance regime has engaged with since its inception. The North-South rift that has been a consistent feature of climate finance negotiations echoes the roots of climate injustices in historical North-South economic and political relationships and inequalities. Developing countries have demonstrated a common drive for increased finance and the recognition of developed countries' historical responsibilities within finance policy, but developed countries have pushed back and sought to limit such normative claims and their associated financial liabilities. Some international political economy and international relations scholars have explored the role of justice perspectives and debates within climate change politics, particularly in terms of North-South power dynamics and the role of equity as a factor in facilitating political agreement. However, few have engaged systematically with climate finance and with the development of institutional structures over time as a factor connecting justice and political activity and outcomes.

Rather than a systematic needs- or recipient-focused system integrating with sustainable development aims and programmes, the UNFCCC climate finance system has incorporated many of the features and institutions of development assistance that recipient countries, NGOs and others strongly criticise as favouring donor countries' interests and perceptions of justice. UNFCCC policy has also remained inadequate to generate and deliver quantities of climate finance in forms and with conditions that match the needs articulated by developing countries and reflect their conception of justice (Ciplet et al. 2013). Although some scholars have made reference to donor influence and linked North-South policy contestation to longstanding issues from the development sector and broader political systems, the ways that these existing issues and power dynamics became such a core feature of the climate finance policy process and the reasons that these influences have been so persistent over time have not been studied systematically through the course of the UNFCCC's development. Sharma (2017) has argued recently that the lack of clarity on

definitions, requirements and expectations of climate finance, additionality, conditionality and sources is likely to persist in the new regime cemented by the 2015 Paris Agreement. The influence of institutional factors on the climate finance policy process and the justice of its outcomes remains a live issue and one where a historical perspective can add fresh and valuable insight as the climate governance regime continues to evolve. The next chapter will introduce and explore this historical perspective.

3. Historical institutionalism theory and application

3.1 Introduction

Chapter 2 showed that climate finance is central to understanding both climate justice and the ongoing political disagreement along North-South lines that has characterised climate governance since its initiation. There is considerable evidence of the broader development assistance system leaving a strong legacy within the UNFCCC policy process and its finance mechanism, UNFCCC policy has not closed the finance gap that has persisted in the face of growing understanding of the levels and urgency of climate finance required to meet developing countries' needs, and the governance process has failed to facilitate resolution of contested issues within climate finance that are central to developing countries achieving climate justice as they perceive and define it. These factors all point to the significance of the design and development of the UNFCCC and its policy process when considering the justice and adequacy of global climate finance governance, something hinted at by climate governance scholars suggesting that global climate policy is constrained 'by the path dependency of prior decisions' (Adger et al. 2011, p. 759). However, the mechanisms by which institutional design and layers of policy within the UNFCCC institution reinforce (or reduce) power inequalities and development-related paradigms, and the nature and extent of these influences, have not been systematically examined within climate politics and justice literatures.

In the context of this gap in literature and the research challenge it highlights, showing how historical institutionalism can facilitate a thorough and informative examination of institutional factors in UNFCCC climate finance requires an understanding of how scholars have previously addressed global environmental governance institutions. The considerable scholarship in this area stems from the complexity and global or cross-border nature of many forms of environmental change and problems, which makes them impossible to address properly without involving multiple countries (Young 1990). Historical institutionalism can add valuable new insight by capturing a broader range of motivations than rationalist and constructivist approaches to international relations and exploring the interaction of ideas and material interests within an institutional context, rather than separately, combining this with attention to the founding moments of institutions and the broader systemic context in which they were formed (Thelen and Steinmo 1992). A historical institutionalist approach provides a distinct set of conceptual tools and mechanisms for

investigating the complex ways in which change and continuity mix and the dynamics of institutional development over time, examining how political authority is reinforced and how actors and structures interact (Fioretos 2011, Rixen and Viola 2016).

This chapter will first set out how political study of international institutions has developed, focusing on the key debate between the rationalist and constructivist approaches and outlining how scholars have used these approaches, and international political economy, to investigate international institutions and global environmental governance. The chapter will continue by explaining the origins of historical institutionalism and its potential to contribute new insight into how international governance institutions function and how institutional founding and development has played a role in shaping interaction between countries and the policy outcomes they have negotiated within the UNFCCC climate finance policy process. The chapter will then go into greater detail about key dimensions and tools involved in using a historical institutionalist approach. Finally, the chapter will explain the limited existing uses of historical institutionalism to investigate international institutions and environmental governance, to which this thesis will add by extending historical institutionalism to the study of a treaty-based institution such as the UNFCCC.

3.2 Overview of institutional research

To understand the relevance, utility and novelty of a historical institutionalist approach to the justice and politics of climate finance and governance, it is first important to understand how scholars have studied institutions at the international level and both their key contributions and the limitations that historical institutionalism can help to overcome. Starting at the very beginning, institutions in the social world are various configurations of conventions, norms and rules that guide how humans expect each other to behave. Institutions in this expansive sense may be formal or informal, but either way the guidance they provide brings a degree of stability to human interaction in different situations or communities (Vatn 2015). Political institutions usually give their constituent practices and rules a formal, and often legal structure, with defined decision making processes and, often, some kind of enforcement mechanism to determine and apply the relevant sanctions (Heywood 2000, p. 93).

The rules, politics and outcomes of international institutions have been studied by scholars for generations and from various perspectives. This section will introduce these perspectives and debates, exploring neoliberal institutionalist research into how state interaction is facilitated by regimes, their effectiveness and interlinkages in an increasingly complex and interdependent governance landscape within the anarchic international

system, and constructivist research into the role of ideas in shaping institutions and how institutional norms guide the behaviour of actors. The section will then outline international political economy research focusing on global economic structures and inequalities and their influence on uneven power distribution and governance outcomes. By incorporating ideas, interests and broader systemic influences, historical institutionalism's analytical framework for studying the role of institutions themselves and their creation, development and influence over time, sits aside from and can add fresh insight to neoliberal institutionalist analysis of environmental governance regimes in facilitating co-operation between states and the constructivist focus on ideas and socialisation of states, and can add a new layer to international political economy analysis of how global environmental governance fits into broader political and economic systems and inequalities.

3.2.1 International relations and institutions

The initial institutional focus of international relations scholars was on formal international organisations that were created in the years after World War II, such as the UN and IMF, but this subsequently evolved into the study of governance regimes after events with OPEC and the US gold standard led many to question the focus on formal institutional structures in the 1970s (Martin and Simmons 1998, pp. 736–737). Regimes are a broader concept than formal international organisations, constituting norms and rules that affect state behaviour, rather than just the task-based bureaucracies of international organisations (Young 1994, pp. 3–4). While the term "regime" is still used when referring to a specific governance institution, "institution" has become the more common term within international relations scholarship (Martin and Simmons 2012, p. 328). Realist (or neo-realist) scholars were sceptical about institutions as a factor in shaping and constraining co-operation between states, focusing on states as the key actors in international politics, the rational and self-interested basis of their action, and the distribution of power as the causal factor in shaping their strategies (Strange 1982, Mearsheimer 1994).

This rationalist basis for state behaviour was shared by neoliberal institutionalists, but they took a more optimistic perspective and sought to explain why states co-operate and create institutions within an anarchic political system (Stein 1982, Keohane 1988, p. 381). This influential approach emerged within international relations in the 1980s and was prominent throughout the latter years of the Twentieth Century (Higgott 2008, p. 616). Neoliberal institutionalists initially focused on how mutual interests and building trust could facilitate co-operation amongst states as the potential grew for both conflict and co-operation derived from increasing international economic interdependence (Keohane 1984, pp. 5–7). In a widely-cited definition that encapsulates this optimism, Young (1994, p. 15)

highlights the role of international institutions as rules of the game that are 'capable of resolving conflicts, facilitating cooperation, or, more generally, alleviating collective-action problems in a world of independent actors.' Neoliberal institutionalists argue that states have an interest in using institutions to gain mutual benefit through co-operation, increase transparency to reduce the likelihood of defection, and to maximise their access to information, thereby overcoming some of the barriers to co-operation that realists highlight (Keohane and Nye 2000, Koremenos et al. 2001, Keohane 2002).

Constructivists, a contrasting branch of international relations theory, see global politics differently, focusing on 'the role of ideas, norms, knowledge, culture, and argument in politics, stressing in particular the role of collectively held or "intersubjective" ideas and understandings on social life' (Finnemore and Sikkink 2001, p. 392). Constructivists consider interests in the context of social structures and affected by identity, ideas and norms, as opposed to the rational interests assumed by realists and neoliberal institutionalists; changing ideas and norms can therefore affect how states conceive of their own identities, interests and choices within governance regimes and in relation to problems, policy goals and other states (Hopf 1998, Haas 2002). Constructivists consider ideas as important as material factors in shaping political interaction, and see institutions and global governance regimes as mechanisms for building consensus over problem definition and significance, and generating and diffusing ideas and norms that will guide the behaviour of states and other actors accordingly (Finnemore and Sikkink 1998, Barnett and Finnemore 1999, O'Neill 2009, Coleman 2013).

Although not the first to suggest it, Fioretos (2011) has been influential in arguing that historical institutionalism can complement more traditional constructivist and rationalist approaches to international relations. Neoliberal institutionalism has moved to incorporate rational choice institutionalism, and the constructivist critique of this rational approach has incorporated insight from sociological institutionalism, but historical institutionalism has remained outside this central debate within international relations (Rixen and Viola 2016). Rather than focusing on one of these sides to provide the dominant mode of action, historical institutionalism can incorporate power, interests, ideas and norms as factors shaping the way that states create institutions to address collective action problems, facilitating a cohesive interrogation of the way founding moments shape the distribution of power within institutions, how institutions shape which ideas are credible and influential, and which options and strategies are available to actors. It is important to remember that historical institutionalism cannot be used as a general theory to explain all political activity at the international level, since it is clearly focused on institutions, and often requires or benefits from other perspectives in seeking to explain the foundational

circumstances of new institutions (Zürn 2016). However, historical institutionalism can take social scientists beyond assumptions that institutions originate and change to meet functional requirements, and assess the consequences of institutions over time as they become independent causal forces that affect the political environment (Pierson 2004).

3.2.2 International relations and environmental governance regimes

Neoliberal institutionalist scholars began to apply their rationalist perspectives to global environmental problems in the 1980s, led initially by Young (1982, 1989, 1990). This school has focused on how institutional rules, and the manner in which they build trust and stabilise expectations, can help to overcome barriers to intergovernmental co-operation, including transaction costs of negotiating complex environmental treaties and enforcing compliance, the uncertainty associated with lack of information and imperfect future projections of environmental change, and the strategic considerations associated with bargaining, varied preferences and access to information (Young 1989, Barrett 1994, Frischmann 2003). Emphasis is placed on what kind of regimes are necessary for securing co-operation on environmental governance (Victor 1991, Barrett 2003, Dietz et al. 2003) and evaluating the effectiveness of the institutions that are built on the co-operation they facilitate (Haas et al. 1993, Young 1994, Victor 1998, 2006), echoing the focus of neoliberal institutionalism beyond environmental governance (Simmons and Haggard 1987, Levy et al. 1995).

Neoliberal institutionalists within international environmental politics have moved into a 'postrealist consensus which holds that international institutions do matter', but a focus remains on demonstrating why institutions matter and establish which kinds of regimes are most effective (Zürn 1998, pp. 619–620, Mitchell 2006, Cumberlege 2009), and how regimes affect state behaviour and environmental problems (O'Neill 2009, p. 14, Breitmeier et al. 2011). Young, for example, sought to move the research agenda on from questions of causality, performance and design to more dynamic and innovative study of how environmental governance regimes fit together, overlap and operate at multiple scales (Young 2002a, pp. 19–20, Mitchell 2013). More recently, scholars have argued that climate governance has moved beyond a single institution or regime and now climate change is being governed by a transnational network of various types of institutions at multiple scales, termed the "regime complex" (Okereke et al. 2009, Keohane and Victor 2011, Abbott 2012, 2014, Widerberg and Pattberg 2017).

A core argument of neoliberal institutionalism is that environmental regimes reduce transaction costs of state co-operation by 'relieving parties of the need to return to the bargaining table' every time there is a change to an element of the agreement that underpins

the regime, such as new scientific information or a change to the cost of mitigation measures (Frischmann 2003). However, this game-theoretic approach seems to overlook the reality of multilateral environmental agreements such as the UNFCCC, where the nature of multiple negotiations each year means that policy making, and therefore the need for bargaining and consensus, is almost continuous, albeit usually at a level below that required for ratification by member state governments (Brunnée 2006). Looking beyond neoliberal institutionalist theorists, many international relations and global environmental governance scholars have made reference to environmental governance regimes based on a forum that brings all member countries together on a one-country, one-vote basis (Ervine 2007, Brenton 2013, Brunnée and Streck 2013, Ciplet et al. 2015). However, while some scholars have advocated design principles or changes to regime structures that can facilitate more effective, fair, legitimate and transparent regimes (Lockwood et al. 2010), there remains a gap in understanding how institutional rule structures are created by the accumulation of layers of policy on top of the institution's original design, and how this influences state behaviour and the realisation of preferences over repeated rounds of bargaining and policy making in a one-country-one-vote forum.

Multilateral environmental agreements often include provisions or mechanisms to support the environmental or behaviour change objectives of the regime, including financial assistance requirements as well as capacity building and technology transfer programmes (Bridgewater and Bridgewater 2005, Falkner and Buzan 2019, p. 140). These kinds of clauses have been interpreted by international relations scholars as strategic "side payments", often directed towards developing countries to secure their buy-in to the new governance regime and ongoing participation and compliance, in the absence of a hegemonic power that forces support (Frischmann 2003, Falkner 2005, Martin and Simmons 2012). However, within the UNFCCC, climate finance has developed into a key pillar of the institutional structure that is often seen as a linchpin within negotiations, with policy making just as extensive as the mitigation and adaptation elements of the regime (Sterk et al. 2011). Some international relations scholars have identified finance as a key factor in the disagreement and political stalemate that have plagued UNFCCC negotiations as developed countries seek to avoid overly-burdensome finance commitments (Falkner et al. 2010, p. 256, Gomez-Echeverri 2013). Realists have argued that finance is a key material interest of states, and therefore central to the power politics within negotiations (Brenton 2013). Others have focused on the role of finance in building agreement amongst states necessary to secure a comprehensive climate treaty (Streck 2012, p. 54), echoing traditional perceptions of finance as an inducement for political participation in a governance regime.

As the UNFCCC matures as a governance regime, emphasis within it has moved from agreeing on the scope of the climate change problem and the policy options with which to respond, to implementation of policies and mechanisms, leading to a renewed prominence for finance (Gomez-Echeverri 2013, p. 636) and an opportunity to move beyond international relations studies that concentrate on the behavioural aspects of regime formation and the logic behind the behaviour of actors within environmental regimes (Kütting 2000, p. 5). With over two decades of negotiations to scrutinise and unravel, the time is right to examine how the institutional form that forged international co-operation on climate change has reinforced power distribution, key ideas and inequalities from prior political systems, and has influenced actor behaviour in a policy process that has failed to overcome key contestations on finance and remains subject to considerable criticism.

3.2.3 International political economy and global environmental governance

As climate governance has evolved and become ever more complex, a greater range of disciplinary diversity has been evident in analysis of governance systems and structures at different scales, and moving beyond international relations' traditional focus on the state (Bulkeley 2010). Scholars using various critical theoretical viewpoints have queried and challenged the international order and the policies it produces, interrogating complex systems that connect the environment, economy and politics, and underpin power imbalances and injustices present in both these global systems and the climate governance regime (Wapner 2008). Paterson (2000, p. 40), for example, argues that 'the politics of global environmental problems should be understood as phenomena internal to the logics of four main, interrelated, power structures of world politics: the state system; capitalism; knowledge; and patriarchy'; international co-operation and state identities and behaviour are shaped by these macro-level structures and their influence on power distribution.

Several studies have examined the role of global economic structures in shaping international institutions, with Okereke et al. (2009) arguing in the context of non-nation state actors in the climate governance regime that Gramscian theory can help reveal the influence of dominant neoliberal structures and how they affect climate change problem definition and constrain the strategies available to actors. This echoes Newell and Levy's (2002, p. 86) earlier assertions that global governance regimes are embedded in 'broader economic and discursive structures of the global capitalist economy'. Newell and Levy (2002) examine the role of businesses in forming governance regimes but seek to link micro-level issue areas with macro-level international governance structures, arguing that actors (firms, in this case) use power strategically to achieve economic goals through interaction with economic and political structures. Other scholars have linked climate justice to global

structures, such as Dawson (2010), who addresses the roots of climate change in the global capitalist and neoliberal order and suggests demands for climate justice will increasingly conflict with and challenge these structures, arguing that many organisations involved in environmental conservation and governance have failed to integrate perspectives of communities most affected by the damaging results of industrial activity.

Focusing on climate justice as a concept and a movement, Grear (2014, p. 104) articulates the risk that the pursuit of climate justice may be absorbed into existing uneven global economic and political structures since the concept is 'vulnerable to co-option in the service of 'business as usual''. Making reference to neo-Gramscian conceptions of hegemonic global structures, Bernstein (2000) has focused on norm selection and evolution, incorporating material interests and power in causal explanations for how social structures and ideas shape the behaviour of agents and development of environmental governance. While offering useful insight into the institutionalisation of particular norms into the social structure within which actors conceive of their identities and interests, these areas of literature do not look systematically within institutions to examine how institutional design and development over time may reflect ideas or preferences advocated by particular actors or coalitions and contested by others, and how actors respond differently to the presence of rules and norms that reinforce or are contrary to their conceptions of justice and/or their material interests. Historical institutionalist analysis can target this gap by looking at institutional creation and micro-processes that lead to reinforcement and alteration of evolving rule structures, including the way in which they reproduce or diffuse particular features of macro systems, thereby avoiding some of the structural determinism possible with Marxist, functionalist, and systems-theory approaches (Thelen and Steinmo 1992).

3.3 Positioning and applying historical institutionalism

Historical institutionalism has developed within political science alongside sociological institutionalism and rational choice institutionalism. Collectively, these "new institutionalist" approaches developed as a response to what some political science scholars perceived was too great a focus within the discipline on the role of individual agency during the 1960s and 1970s (Munck af Rosenschöld et al. 2014). "New" institutionalists were influenced by moves by economics scholars such as Arthur and North to give attention to history and institutions (Arthur 1988, 1989, North 1990, Dugger 1995), and from the study of political institutions by rational choice theorists such as Fiorina (1995). In an important early work, Thelen and Steinmo (1992) explained that historical institutionalists were seeking to explain political outcomes by studying the influence of institutions on the way power is distributed amongst actors, the values and attitudes held by actors, and the

observable behaviour they exhibit. This drew from assertions of the interdependence between social and political institutions (March & Olsen 1984) and corresponding efforts to 'identify the ways in which the formal and informal rules of the game in political and social life influence political behaviour' (Pierson 1994, p.596).

The overall claim of historical institutionalism is that the way in which institutions are arranged and function is a product of the past, and also constrains the preferences of actors and the choices available to them in the present and future (O'Riordan and Jordan 1999). Engaging with the passage of time and patterns of political history is the first layer, but in a dynamic manner not restricted to simply charting the course of events and outcomes in the political world. Key to this dynamic analysis is institutional design and development since, for historical institutionalists, a thorough understanding of the political world requires taking account of the fluctuating and multifaceted processes involved in the creation, maintenance and evolution of institutions over time (Fioretos 2011). Institutions are 'the humanly devised constraints that structure political, economic and social interaction' (North 1991, p. 97), so the manner in which they constrain actor behaviour has important implications for the use and distribution of resources and the resolution of collective action problems. This is particularly relevant for global environmental problems in general, and climate finance in particular, because institutional rules and constraints influence which interests are protected and how benefits and burdens are distributed among actors (Vatn 2015).

This section will introduce historical institutionalism, explaining how it can facilitate an approach that balances the rationalist focus on material interests as drivers of behaviour and the importance given to ideas and norms as influences on identity and interests by constructivist and sociological perspectives. This balance allows an analysis particularly suited to climate finance since normative justice claims are at the heart of the problem and policy debates, but money and burden-sharing mean that states' material interests are similarly at the forefront. With key policy controversies threading throughout the history and evolution of the UNFCCC's negotiations, the retrospective analysis offered by historical institutionalism can identify how the passage of time disrupts and constrains institutions and actors in the political world. First, the section will position historical institutionalism in relation to the two other "new" institutionalisms, rational choice institutionalism and sociological institutionalism, and explain the core of the historical institutionalist approach. Relatively little historical institutionalist analysis has been undertaken at the international level, so the section will draw on key elements from existing historical institutionalist theory to facilitate this project, namely initial institutional design, power and interests, institutional stability and change, and the role of ideas, before outlining

the opportunities and challenges of using historical institutionalism at the international level.

3.3.1 Positioning historical institutionalism

Historical institutionalism developed to challenge existing assumptions about human behaviour being driven by deliberate choices, as was and remains common in political analysis (March and Olsen 1984), and differs from rationalist approaches to institutions in its greater attention to how preferences are formed, and in particular the role of institutions in shaping and constraining preferences (Koelble 1995, p. 232). This contrasts with realists and neoliberal institutionalists, who see institutions 'as effects of state action, not part of the basic structure' (Paterson 1996b, p. 132). The coalitions and bargaining that are so core to policymaking processes, including UNFCCC climate finance with its history of intense negotiations, numerous blocs and strong North-South divisions, must be considered within the context of how actors' behaviour is stimulated and constrained by structural influences on problem definition and policy options (Thelen and Steinmo 1992). Stepping back, institutions can distil features of the national or international system in which they sit, in terms of ideology, objectives and other shared understandings (Thelen and Steinmo 1992), which are central to understanding justice and UNFCCC policy outcomes since the power inequalities, problem definitions and injustices involved pre-dated the formation of the institution and pervade the wider environmental and development governance landscape in which the UNFCCC was created. This can be seen, for instance, in the influence that the design of and norms from prior multilateral environmental agreements such as the Montreal Protocol had in the creation of the UNFCCC (Green 2009).

Rational choice institutionalism is also part of the "new" institutionalism school, but is closer to neo-classical economics and is associated with North and other organisational economists, as well as with neoliberal institutionalism (Hall and Taylor 1996). Actors' preferences are seen as stable and they make logical decisions in line with these preferences and perceived consequences; institutions are collections of formal rules and procedures that reduce the transaction costs of repetitive interaction, shaped by actors as a reflection of and means to advance their interests (DiMaggio 1998, O'Riordan and Jordan 1999). Rational choice institutionalism emphasises the role of strategic behaviour in determining outcomes, noting the importance of actors' expectations about each other's behaviour and suggesting that 'what prevents the actors from taking a collectively-superior course of action is the absence of institutional arrangements that would guarantee complementary behavior by others' (Hall and Taylor 1996, p. 945). This ties in with much international relations scholarship and the extensive literature on strategies and state behaviour within

negotiations over a collective response to climate change. However, the dynamic and changing nature of state interests and behaviour highlights the tendency for rational choice institutionalism to assume too much about preferences on the basis of current institutional arrangements, and to overlook the way the longevity of institutions and multifaceted nature of actors' preferences complicates the relationship between structure and agency (O'Riordan and Jordan 1999).

Sociological institutionalism is the third "new" institutionalism, and its proponents 'emphasise the social and cognitive features of institutions rather than structural and constraining features', sharing similarities with constructivist approaches but providing a more substantial theoretical framework that seeks to identify what the social structure actually is, and arguing that this social structure is global in nature and ontologically primary, permeating 'all aspects of political and social life in all states within it' (Finnemore 1996, pp. 326–327). Sociological and historical institutionalisms are similar in both emphasising the role of social norms and political ideas in shaping the behaviour of actors (Finnemore 1996). In terms of institutions, however, historical institutionalists differ by considering that institutions influence which ideas and shared understandings are important and will form the basis of new institutions, rather than the reverse; subsequently, ideas or claims about problems and policy options that gain prominence and legitimacy within an institution can persist even in the presence of other ideas which may later seem more legitimate (Fioretos 2011). Institutions 'embody rules that encapsulate values, norms and views of the world', meaning they reflect the social and political world in which they are located and consequently influence the policy processes within them (O'Riordan & Jordan 1999: 82).

Historical institutionalism is 'grounded in the assumption that a historically constructed set of institutional constraints and opportunities affects the behavior of political actors and interest groups involved in the policy process' (Béland 2007, p. 21). In seeking to identify these constraints and opportunities, historical institutionalists are particularly concerned with how macro-level systems and structures shape the power that actors hold and the ideas and paradigms that are prevalent at the historical moment when new institutions are created, since these factors influence the initial rules and form of new institutions (Farrell and Finnemore 2016). Historical institutionalism can then facilitate study of whether activity and processes within institutions over time are shaped or constrained in line with initial conditions, or provide a "black box" wherein actors, individually or in coalitions, facilitate institutional change away from the ideas, paradigms, injustices and power distribution that characterise broader global systems. As Hall (2016, p. 32) puts it, historical institutionalism seeks to identify the 'impact on political action of the

social, economic, and political structures in which actors are embedded at a particular time or place', and consider 'how events not only affect the immediate outcome of interest but also restructure the institutional or ideological setting in ways that condition outcomes in later periods of time.'

Remaining distinct from both rational choice institutionalism and sociological institutionalism, and separate from the rationalist/constructivist debate within international relations, historical institutionalists 'conceptualize institutions as sets of regularized practices with a rule-like quality in the sense that the actors expect the practices to be observed; and which, in some but not all, cases are supported by formal sanctions' (Hall and Thelen 2009, p. 9). Historical institutionalists see mutual expectations as the heart of institutions, noting that actors depend on institutions to negotiate the transactions and interactions of daily life; in the political context, actors turn to institutions to build the mutual expectations that facilitate resolutions of conflict and management of collective action problems (Hall 2016). Historical institutionalists examine how institutions are formed and which actors benefit from their existence, since institutions may be designed in a way that supports one interest against another or prioritises certain values or normative perspectives (Vatn 2015). This involves identifying how the structural features and policy paths formed at the point of institutional creation reflect the interests of dominant actors or those that prevailed in the institutional design process (Hotimsky et al. 2006). Hall (2016, p. 40) captures this process in his description of "social coalitions" composed of actors powerful in the relevant area, which he argues are vital for understanding institutional design since coalitions are the creators of institutions, and then institutions 'persist only as long as they retain an ample supporting coalition, even if the composition of that coalition changes over time'.

Encouraged most prominently by Fioretos (2011), several authors (Farrell and Newman 2010, Chwieroth 2013, Hanrieder 2014) have begun to apply historical institutionalist approaches to the study of international politics and international institutions, and a small number of scholars have engaged specifically with environmental governance regimes and the UNFCCC (Prys-Hansen and Franz 2015, Nasiritousi and Linnér 2016). Hanrieder (2014, pp. 324 & 326) has championed historical institutionalist research into international organisations, arguing that the focus on 'institutional friction between formal rules and material power' is particularly relevant for the turbulent power dynamics of international organisations with a one-country-one-vote structure (of which the UNFCCC is one), and can fill gaps left by previous approaches to international relations, such as principal-agent analysis, which have struggled to illuminate the role of rules and power relations that affect what happens *within* international institutions. The recent volumes

edited by Rixen, Viola and Zürn (2016) and Fioretos (2016b, pt. 6) have added significantly to the breadth of historical institutionalist study of international politics and attest to its potential as an approach to assessing the impact of the global institutional landscape on international affairs.

3.3.2 Power and interests

Historical institutionalists consider that institutional design influences how power is distributed and which interests are prominent within the policy process, and also shapes the extent to which policy choices reflect actors' interests (Immergut 1998, O'Riordan and Jordan 1999). While not discounting the role of self-interested rationality, a dominant perspective in international relations study, historical institutionalism differs from rational choice perspectives by considering the role of institutional design and rules alongside deliberate strategic action to maximise interests when seeking to explain why choices have been made (Steinmo 2008). Mahoney (2000, p. 521), suggests that institutional design can lock in power asymmetries from the beginning, resulting in a self-reinforcing structure that favours the interests of those that held greater power when the institution was created. Power in this context can entail greater access to decision-making processes, ability to set the agenda or confer legitimacy on problem definitions or policy options, or states being influenced by institutional structures to recognise the power of other states (Immergut 1998, p. 18). The attention historical institutionalism gives to the distribution of power is a key reason that its perspective on institutional influence is relevant to assessments of asymmetries of power within negotiations that reinforce broader injustices, since much injustice is related to the greater power held by some actors over others (e.g. Schroeder 2010).

Hall (2016, p. 37) argues that actors have multiple goals, to which variable weights are attached in the context of particular decision situations, and Immergut (1998, p. 7) notes that the interests that actors choose to express are a subject for analysis in themselves. Consequently, historical institutionalist analysis involves identifying the way institutional, ideological and social factors influence how preference weights are applied by actors (Hall 2009) and how actors' interests are expressed in political behaviour, with a focus on the relationship between that expression and the institutional structure in which the relevant actors are embedded. Hall and Taylor (1996, p. 939) argue that institutions shape the identity, self-image and preferences of actors; in the UNFCCC context, O'Riordan and Jordan (1999) have pointed out that the nature and design of institutional structures stems directly from the time before climate change became a politically salient issue and when ever-increasing emissions were universally considered integral to economic development and human progress. With climate finance, the perpetuation of a model of developed countries'

voluntary giving to developing countries (Roberts 2009), for example, raises important questions about the extent to which the institutional structure reinforces this view and has shaped Northern and Southern countries' perceptions of policy options.

Scholars of climate justice and multilateral negotiations have explored unequal power dynamics and North-South relations within the UNFCCC and wider political economy (Okereke 2010, Brunnée and Streck 2013), but the mechanisms by which power inequalities were reflected in the design of the institution and have been subsequently reinforced or overcome at the policy level are under-researched. Williams (2005, p.50) has argued that in addition to developing countries' places within the global power structure, study of developing country interests within environmental negotiations should include the influence of ideas, norms and institutions; his brief account of the UNFCCC suggests the creation of the institution did much to generate the North-South division that has characterised negotiations since then. There have been studies of bargaining tactics within climate change negotiations as developed and developing countries seek to advance preferences and secure their interests, with some arguing that the framing adopted by developing countries has prevented the formation of coalitions with sufficient strength to overcome developed countries' power advantage (Richards 2003), suggesting that Hall's (2016) emphasis on coalitions within an institution (see 3.3.4 below) may bear empirical fruit in the UNFCCC context.

3.3.3 Institutional stability and path dependence

Historical institutionalists consider that actors design both policies and institutions to be difficult to change, which can bind future actors, including the policymaker themselves, into particular paths of policy and institutional design even when interests change considerably over time (Pierson 2000). Powerful actors, which Thelen (2004, p. 286) reminds us must be specified, are often influential in creating institutions in particular ways that reflect their interests. Subsequent points at which policy choices are made must be contextualised 'within a broader temporal framework that takes into account the feedback effects that have defined the conditions within which specific policy and institutional choices are being made' (Thelen 2004, p. 288). In other words, the initial institutional design, the extent of its subsequent reinforcement and the evolving distribution of power within an institution affects how it will influence policy decisions that actors make. In turn, these effects shape the stability of an institution, since if power distribution remains the same and prior decisions have reinforced the initial institutional design, actors are less likely to deviate from the prevailing structural features of policy. This is the theoretical basis for historical institutionalism's focus on institutional design; it is vital to understand the stake that actors

have in reinforcing the power distribution and policies (Fioretos 2011) and the way institutional design helps to reinforce coalitions of actors that help to keep the institutional arrangements stable (Hall 2016).

Historical institutionalism has long been associated with path dependence, a tool used to identify the repeated reproduction of a particular policy path or institutional features amongst the layers of small choices made by policy actors over time (Djelic and Quack 2007, Immergut and Anderson 2008, Rayner 2009, Fioretos 2011). By focusing on the mechanisms behind this reproduction, it becomes possible to measure institutional change or stability over time at a macro level and explain why observed macro level changes or stability have occurred, rather than simply describing what has happened (Pierson 2000; Duit 2007). Self-reinforcing sequences or path dependence are often based on the presence of positive feedbacks, developed in institutional economics literature most frequently as increasing returns (Bardhan 1989, Krugman 1991, Arthur 1994, David 1994, Boschma and Lambooy 1999). According to this view, after a random, or contingent, initial event or circumstance, an institutional pattern is adopted and its continued existence delivers some benefit or positive externality that makes it more and more difficult to alter the relevant pattern of behaviour or policy (Mahoney 2000, Page 2006). For example, administrative costs reduce and knowledge about a policy structure and operation increases the longer the policy remains in place (Woerdman 2004). Often the delivery of these benefits is viewed in utilitarian terms related to cost-benefit analysis and rational choice, focused on the lock-in of relatively inefficient policies or institutional arrangements instead of more efficient alternatives (Foray 1997, Mahoney 2000, pp. 508–509).

Bennet and Elman (2006, p. 256) argue that ‘in political life, however, the question of “efficiency” is less clear cut, as distributional issues loom large and the relevant question is often not whether an institution is efficient but for whom it is efficient or beneficial.’ The ability of some actors or coalitions of actors to implement institutional rules to their benefit can generate an important source of positive feedback; the presence of advantageous rules and norms both helps and incentivises actors to reinforce them and to create new ones within the institution that further reinforce or increase their advantage and the structure that provides it (Pierson 2004, p. 36). In UNFCCC climate finance negotiations, where North-South inequality and power dynamics have characterised the policy process, historical institutionalist analysis will help to identify in which policy areas and institutional arrangements positive feedbacks are present and how associated micro-processes have reinforced the interests and power of coalitions or particular actors with a stake in preserving institutional or policy continuation.

Thorough historical institutionalist analysis must also look beyond the institution in question to help explain stability, since 'the institutional matrix consists of an interdependent web of institutions and consequent political and economic organizations' (North 1991, p. 109). Policy choices can encourage the creation of networks that reach beyond one particular institution and connect it with other institutions, further reinforcing expectations and increasing the cost and disruption involved in changing the policy path (Pierson 1994). These "network co-ordination effects" bring benefits to actors and coalitions within the institution in question who wish to preserve the status quo (Hall 2016). For example, this may be a factor in the ongoing links between the UNFCCC and the OECD's Development Assistance Committee, which regulates the ODA system and speaks on behalf of developed countries on the subject of their broader climate finance contributions, and the similarities between UNFCCC and OECD-DAC voluntary and self-defined systems.

3.3.4 Institutional change and coalitions of actors

Institutions are never completely static, and exist in a state of perpetual interplay between human behaviour and choices and wider foundational components of society such as economic systems and cultural values. Historical institutionalism is often associated with punctuated equilibrium models, which emerged early in institutional scholarship (Collier and Collier 1991, Thelen and Steinmo 1992). In these models, critical junctures break through stable social and political systems and established path dependent policies, creating the only opportunities for major institutional reform (Pierson 2004, pp. 134–135). These critical junctures are the points where analysis can reveal how and why institutional change occurs, although change does not always follow when a juncture opens (Capoccia and Kelemen 2007). Once a new policy or institutional design is chosen, a new equilibrium is established and it becomes progressively more difficult to deviate from this path (Mahoney 2000, p. 503). Critical juncture approaches have been criticised for an inability to deal adequately with observed institutional and policy change, and for lacking theoretical tools to explain when established paths are disrupted or broken (Hira and Hira 2000, Greener 2002, p. 164). Critical juncture models 'tend to distinguish sharply between periods of institutional creation and periods of 'stasis'' (Thelen 2003, p. 19) and focus on exogenous, significant shocks as the junctures that stimulate change (Pierson 2004, p. 135), thereby 'encouraging us to conceive of change as involving the "breakdown" of one set of institutions and its replacement with another' (Mahoney and Thelen 2009, p. 7).

While some scholars have refined and clarified the critical junctures approach (Hogan 2006, Capoccia and Kelemen 2007), perspectives that consider that 'most institutional change is incremental rather than totally reconstructive or destructive' (Levi

1990, p. 415) and that junctures are 'rarely so "critical" and often limited to a single policy domain' (Hall 2016, p. 41) are more prominent now. Much historical institutionalist literature seeks to explain institutional change by identifying mechanisms that contribute to this incremental change over time, in a deliberate effort to go further than identifying path dependence and historical constraints on choices and institutional development when seeking to understand institutional influence in the political world (Thelen 1999, 2004, Streek and Thelen 2005a, Béland 2007, Mahoney and Thelen 2009).

As a relatively new institution with a treaty-based format that involves creation of new layers of policy every year, a model of institutional change that can account for incremental and internally-generated change is more applicable to the UNFCCC than a punctuated equilibrium model that requires significant and exogenous shocks to explain conditions where actors can re-shape the institution. Building on their earlier work (Streek and Thelen 2005b), Mahoney and Thelen (2009, pp. 15–16) delineate four types of gradual institutional change: displacement, or gradual removal of existing rules and introduction of new ones; layering, or amending existing rules or attaching new rules on top; drift, or the changing impact of existing rules due to shifts in the environment; and conversion, or the changed application or interpretation of existing rules driven by actors strategically manipulating institutional ambiguities. These mechanisms can help to illuminate how political contestation over small alterations or additions to institutional rule structures or their interpretation over time can gradually reshape international political and economic institutions, or accumulate and lead to more radical changes (Fioretos et al. 2016a, pp. 13–14).

Historical institutionalists also draw attention to the effects of institutional design and development on the preferences of actors for retaining or changing institutional structures. Unlike rational choice perspectives in which the effects and advantages of institutional structures are discounted, historical institutionalists highlight 'the extent to which people gain or lose access to the advantages (or disadvantages) they associate with past designs, including those that confer positions of privilege that translate into forms of enduring influence', as a key factor in the calculations actors make when confronted with new realities and decisions over whether to facilitate incremental or more substantial institutional change (Fioretos 2011, pp. 373 & 376). In contrast to a rational choice perspective, where a marginal benefit will lead to a significant shift in preferences, historical institutionalism suggests that the accumulation of sufficient advantage to outweigh those lost from the ending of existing arrangements will be necessary to bring about institutional change (Fioretos 2011, p. 375).

Bringing these processes together, Thelen (2004, pp. 290–291) argues that, while institutions do ‘affect the interests and strategic options available to various groups’, institutions are not simply static and remain constantly open to challenge and political contestation, and ‘changes in the political coalitions on which they rest hold the key to understanding significant shifts over time in the form institutions take and the functions they perform’. Hall (2016) builds on this notion of coalitions, as mentioned previously, in this case arguing that while gradual ‘reform from above’ may well be continuous within institutions, a coalition of sufficient strength is required to bring about more significant institutional change. While this might involve gaining support for abandoning established policies and agreeing on reforms, Vatn (2015) suggests that existing institutional configurations and rules can suppress the ability of actors to articulate their interests and succeed in having them accepted as legitimate concerns or grounds for change within the political process. This is required to overcome the power held by actors or coalitions with a stake in preserving the advantage they gain from the prevailing institutional structure. This conception of interplay between small-scale changes that preserve actors’ positions within an institution, and the building up of discontent, legitimacy and momentum to overcome the power of established coalitions that have shaped the existing institutional structure, appears to be a much closer fit with the consistent North-South dynamics commonly associated with the UNFCCC. However, the micro-processes involved in the widespread stability and few instances of institutional change initially observable in the history of UNFCCC climate finance and the way institutional changes relate to and affect actors’ preferences remain in need of systematic examination.

3.3.5 Ideas and policy paradigms

Historical institutionalism recognises the importance of ideas, since actors use them to gain prominence in the political discourse that forms the basis of policymaking processes within institutions and ‘ideas serve as mobilizing forces for collective action by social groups that want to create or change institutions’ (Sanders 2008, p. 42). Institutions are the key to understanding how ideas are turned into policies by actors, with recognition that the development and use of language is a core part of this process (Thelen and Steinmo 1992). Attention to ideas by historical institutionalists has focused on how ideas become embedded in institutions, and how institutions and policy paradigms influence which new ideas matter, in contrast to constructivist or historical sociology perspectives that prioritise the role of ideas in influencing institutions and actor behaviour (Fioretos 2011). Policy paradigms are an important manifestation of ideas within the social world and, once they have become part of the structure of an institution, can play an important role in

constraining the range of policy options that actors will perceive as available to them (Campbell 2002). However, the institutionalisation process may not be straightforward; Hotimsky, Cobb and Bond (2006) argue that defining and responding to common-pool problems such as climate change is dominated by political, economic and cultural frames that influence actors' behaviour and often prevent a shared understanding of the problem from emerging.

In an early contribution, Hall (1993, p. 279) defines policy paradigms as 'a framework of ideas and standards that specifies not only the goals of policy and the kind of instruments that can be used to attain them, but also the very nature of the problems they are meant to be addressing.' In turn, this socially-constructed framework underpins policies and shapes policymakers' beliefs about what the policies they create will or are intended to achieve (May 1992). Overarching policy paradigms shape goals and problem definition within the policy process and can become integrated into the institutional design and structure itself; in the context of these paradigms, policy actors must choose which policy instruments they are going to use and how to fine tune them once in place (Greener 2002). In the climate change context, several authors have argued that the neoliberal paradigm that prevails within the political economy of international climate politics influences policy, for example in the preponderance of market-based solutions in UNFCCC policy (Kline 2001, Paterson 2011). Similarly, others argue that the prioritisation of economic growth is another paradigm that underpins the climate change regime, although this paradigm is challenged by advocates of prioritising environmental protection (Anderson and Bows 2012). By analysing the reproduction of paradigmatic ideas within the patchwork of small choices by actors within UNFCCC climate finance negotiations, this project can add to existing research by scholars such as Bernstein (2000) and Okereke (2008, 2010), who have argued that overarching neoliberal structures place ideological constraints on actors within climate governance, thereby conferring power within particular institutions on actors who benefit more broadly from the configuration of these structures.

Hall (1993, p. 280) also argued that conflicting opinions from experts leads to contest over which sources should be considered authoritative within the policy process; this takes place within relevant policy paradigms, which affect how policymakers see the world and the problems they need to deal with, and thus how scientific or technical information and other ideas should be interpreted and acted upon. With a prominent global problem such as climate change, some scientific and policy information is widely known, but significant uncertainty remains about how medium and long term impacts will develop and therefore about the consequences of policy choices. In his constructivist account, Haas (2004, p. 575) argues that path dependence in the policy process is more likely in such circumstances,

since outcomes and preferences are uncertain. In addition (p. 585), these circumstances reinforce the significance of the initial configuration of power, knowledge and formal institutional properties which, in combination with the overarching policy paradigm, shape states' perceptions of problems, potential solutions and willingness to adhere to commitments, which all feed into path-dependent behaviour. Mechanisms of policy stability such as path dependence should be considered within paradigms, in order to extend our understanding of how the institutional design of the UNFCCC has shaped actors' behaviour alongside the signals, reward and penalties that policies themselves provide (Pierson 2000).

In the UNFCCC, the overall paradigm based on the expectation that wealthy countries should provide climate finance to poorer countries has not been seriously challenged (Crump and Downie 2015, p. 157, Lombo et al. 2016, p. 6), but uncertainty around the amount of finance that will be "adequate" to reach the goals of the UNFCCC and meet the needs of developing countries (not necessarily the same thing), has been a consistent source of political contestation within the policy process (Flåm and Skjærseth 2009, Gomez-Echeverri 2013). This is consistent with Mahoney and Thelen's (2009, p. 11) assertion that 'competing interpretations of one and the same rule can mobilize quite different coalitions' into 'movements seeking particular interpretations of the ambiguous or contested rules of a given institution.' However, it is unclear to what extent actors and coalitions within the UNFCCC policy process have been restricted by path dependence that has reinforced other key ideas and policy paradigms established in the Convention, and to what extent actors have been able to use policy to reinforce their favoured interpretations of early policy or alter existing interpretations of policy. Potential policy paradigms shaping actors' expectations and the range of policy options viable within the policy process include the prominence of voluntary commitments, connections between equity and differentiation principles and which countries are required to contribute climate finance, and the mechanisms through which finance should be provided.

3.3.6 Application of historical institutionalism to the UNFCCC

The preceding sections have shown that historical institutionalism is positioned outside the rationalist/constructivist debate central to international relations inquiry into institutions, incorporating ideas and power as factors in how institutions reflect the circumstances in which they are created and reproduce structural advantages that particular actors derive from initial institutional design. In addition, historical institutionalism focuses on micro-processes that can help to identify how macro-level structures that concern international political economy scholars become built into the rules and design of institutions. While the

moves by Fioretos (2011) and others to expand the use of historical institutionalism at the international level have been outlined above, before proceeding it is important to understand the limited research so far undertaken into multilateral environmental agreements and the governance regimes based on them, and the UNFCCC in particular. Scholars are only beginning to uncover the extent to which institutional design, structures and path dependence have affected the development of UNFCCC policies, presenting an important opportunity for this thesis to contribute to furthering the application of historical institutionalism to the international level and provide a novel approach to understanding the justice and politics of UNFCCC climate finance policy.

Existing historical institutionalist work on environmental and climate change policies has mostly asserted the significance of institutions in shaping and constraining policy at the domestic level (Woerdman 2004, Hotimsky et al. 2006, Duit 2007, Knox-Hayes 2012). Others have found evidence of path dependence in domestic policy processes (Verbong and Geels 2010, Garrelts and Lange 2011, Libecap 2011), and even argued that deliberately generating path dependent policies is necessary for creating an effective long-term response to climate change (Levin et al. 2007, 2012). Of the few scholars who have addressed the UNFCCC itself, Castro et al. (2014) focused on path dependence and negotiating blocs in negotiations, while Munck af Rosenschöld et al. (2014) argued that various institutional factors including power and path dependence prevent swifter and more effective action on climate change. Nasiritousi and Linnér (2016) used path dependence and a historical institutionalist lens to analyse the influence of institutional rules governing the involvement of non-state actors in the UNFCCC, while Prys-Hansen and Franz (2015) used a historical institutionalist lens to examine institutionalisation of developing country mitigation commitments, incorporating a focus on discourse and interpretation of institutional norms to explain how stasis gave way to gradual change in policy. This limited scholarship demonstrates the significant opportunity taken by this thesis to extend research into the role of institutions themselves in the processes that create global climate finance policy, with a particular focus on how the institutional context shapes the way North-South inequalities and injustices are reinforced, or overcome, within the UNFCCC policy process.

Looking more broadly, the potential of a historical institutionalist approach to offer timely and valuable insight is supported by various global environmental governance scholars highlighting the need for investigation into the institutional design and policy processes relevant to climate change governance. Paavola and Adger (2005: 365), for example, assert that 'the institutional approach suggests that more attention ought to be given to processes and procedures in environmental decision making in order to guarantee adequate learning and fair representation of affected parties and legitimacy of

environmental decisions.' Keeney and McDaniels (2001: 999) suggest that a 'better understanding is needed of the practices, advantages, and shortcomings of current institutions, both international and national, in order to make and implement appropriate decisions.' Paavola (2005, 2007), with reference to new institutionalist perspectives, argued that environmental and climate governance should be considered as attempts to resolve environmental conflicts, in order to characterise institutional function as achieving social justice rather than economic efficiency. He also suggests that attention should be given to the 'functional and structural tiers, organization of governance functions, and the formulation of key institutional rules as the central aspects of the institutional design of governance solutions' in order to examine the social justice implications of governance institutions more effectively (Paavola 2007, p. 101).

The most significant challenge with institutionalist theories in the context of the UNFCCC is the treaty-based nature of the institution, which contrasts with bureaucratic government ministries or formal, bureaucratic international organisations such as the IMF. While the UNFCCC has a medium-sized secretariat, to which some scholarly attention has been directed (Siebenhüner 2008), its policy process takes the form of a forum where all member countries (Parties) come together to negotiate. As a result, the principal-agent theory and analysis that has traditionally been the basis for research into membership-based international organisations such as the IMF and WHO, for example (Barnett and Finnemore 1999, Hawkins et al. 2006), and the historical institutionalist study of "sticky" domestic public policy processes such as pensions and welfare (Hudson and Lowe 2009, chap. 9, Kuipers 2009), are not are not directly applicable models for the UNFCCC case. The challenge of the UNFCCC case is an important opportunity to extend the application of institutionalist theory; as Farrell and Finnemore (2016, pp. 575–576) argue: 'applying historical institutionalism to non-standard [international] institutional environments would help establish the scope conditions of historical institutionalism's existing toolbox'.

One significant advantage of working with the UNFCCC is that it has a clear and recent point of creation. This means that literature concerning this creation is relatively abundant and accessible, facilitating a thorough analysis of the landscape of power relations, established norms and other institutions existing at the time, as well as the broader global systemic context. Such information forms a key part of historical institutionalist analysis, since this school considers initial conditions to be one of the main formative aspects of how institutions go on to shape and be shaped by actor behaviour over the subsequent life of the institution (O'Riordan and Jordan 1999). Actors often reproduce the logic and scripts that exist in other institutional settings when building new institutions, even if this is not "efficient" (Mahoney and Thelen 2009, p. 5). The ability to access a

significant quantity of information from the process of institutional development will enable historical institutionalist examination of how the initial configuration of the UNFCCC reflected distribution of material resources and has continued to shape politics and authority, and has been a potential cause 'behind preferences and patterns of political contestation' (Fioretos et al. 2016a, p. 9).

3.4 Conclusion

Historical institutionalism offers an alternative to existing theoretical approaches that focus on human behaviour being driven by deliberate choices (March and Olsen 1984), incorporating rational self-interest alongside institutional formation and the influence of rule structures in its approach to understanding how actors make choices (Steinmo 2008). Similarly, historical institutionalism incorporates ideas and ideology by considering that institutional rule structures 'encapsulate values, norms and views of the world', meaning they reflect the social and political world in which they are located and consequently influence the policy processes within them (O'Riordan & Jordan 1999: 82). Incorporating insight from the core motivating factors of neoliberal institutionalism and rational choice institutionalism on the one hand and constructivism and sociological institutionalism on the other, historical institutionalists consider how institutions' founding contexts and development over time have shaped actors' goals and the strategies they use to achieve them within the political world, illuminating structural influences on attitudes and behaviour (Thelen and Steinmo 1992). The historical institutionalist approach is valuable to a study of justice and unequal North-South relationships within global governance because it accepts that actors have multiple goals and interests and seeks to identify how institutions affect the formation of preference weights and influence the value-laden perspectives on political co-operation that actors bring to policy processes (Hall 2016).

Various scholars have encouraged and begun the application of historical institutionalism to international institutions and one-country-one-vote forum-based models such as the UNFCCC (Fioretos 2011, Hanrieder 2014). Scholars have explored the role that ethical issues, power and North-South histories play in climate politics, but this project brings a fresh perspective by using historical institutionalism and will extend its application at the international level. The project will investigate how institutional design reflects and reinforces uneven power and influence and broader ideas and injustices, seek evidence of the micro-level processes that shape actors' preferences about the way institutions are designed and develop, such as social interaction, the development and exchange of ideas, and the use of language to persuade, and in turn how the design of institutions and layering of policy influence interests and decisions and the effects that they

have later in time (Fioretos 2011). Taking a historical view can identify self-reinforcing processes that 'may magnify power imbalances over time' (Pierson 2004, p. 48) and define 'the conditions within which specific policy and institutional choices are being made' (Thelen 2004, p. 288). This temporal approach to studying the UNFCCC policy process is also novel within international relations and environmental governance literature, further demonstrating the potential of a historical institutionalist approach to contribute valuable new insight to how climate finance policy has developed since 1992. The next chapter will detail the method in which this analysis will be undertaken and a tailored set of indicators that will be used to operationalise historical institutionalism theory.

4. Project design and methodology

4.1 Introduction

The typical approach to historical institutionalist research involves analysis of substantial amounts of policy documentation to build up a picture of how events and behaviour have evolved over time. Within this, the researcher seeks to identify evidence of mechanisms that affect power distribution, influence the prominence and legitimacy of ideas and problem definitions, and contribute to institutional stability and institutional change, using historical institutionalist tools such as positive feedbacks, increasing returns, path dependence, policy paradigms and coalitions of actors. This evidence can then be used to explain periods of stability where policies have changed little or have retained key features over time, or to explain how and why actors deviated from existing institutional structures, expectations and policy paths to bring about instances of institutional change. This chapter will explain how the historical institutionalist approach was tailored to the specific circumstances and objectives of this project, setting out the mode of analysis used, including the objectives and the range of mechanisms and processes that the analysis sought to identify. Then data sources will be outlined, as well as the specific steps that were undertaken to gather and analyse historical processual data concerning UNFCCC policy and negotiations, with the aim of producing temporally constructed narratives that facilitated thorough and systematic examination of the extent to which institutional design and development have shaped actor behaviour and policy outcomes over time.

4.2 Mode of analysis

Most historical institutionalist analyses take the form of a temporally constructed narrative, using information on policy and institutional developments to demonstrate how institutional design has persisted and/or a policy path has been created and reinforced (Gerring 2011, p. 1135). When considering the UNFCCC as the research focus, this approach needs some adjustment in order for historical institutionalism to be useful in analysis of an institution in which re-negotiation of policy is constantly taking place. Each year the UNFCCC holds one main and several intermediate rounds of negotiation, and produces official policy after each main annual round (COP), so it is not possible to discuss UNFCCC policy in the same way as one might a piece of domestic legislation, which, once enacted, sits static on the statue book until amended or replaced. To make sense of the multiple layers of UNFCCC policy and provide a sound basis from which to look for periods of stability and change, this project will make use of qualitative analysis of institutional design and the

process of policy development. There are no comprehensive criteria that can conclusively confirm institutional change or stability (Duit 2007, p. 1099) and the causal complexity underlying outcomes in a political environment such as the UNFCCC makes constructing knowledge statements challenging; in this context qualitative research in a case study format is a useful approach even when only one case is studied (Bennett and Elman 2006, p. 251).

As Sydow et al. (2012, p. 162) explain, policy paths are socially constructed phenomena that it is not possible to measure objectively, so qualitative study facilitates investigation of how actors have behaved and been influenced by institutional structures, and 'how actors and incidents on different levels are related to each other'. It is the complex landscape of and nuances within statements and negotiating positions that are the key to identifying how policy paths and actor behaviour have been influenced; it would be very difficult to draw meaningful conclusions from statistical analysis of the simple presence of key words, such as "finance" or "new and additional", or a binary measure of which countries were for or against particular proposals. The very question here is what actors' statements in negotiations and policy wording as a whole, including the presence or absence of such key words and the context in which they are used, tells us about how policies are related to other actors, prior choices and institutional design. Only by taking this cohesive, longitudinal qualitative approach can the way actors present their ideas, interests and priorities over time be tracked, and consequently the micro-processes that reinforce or modify the influence of institutional structures be identified (Hall 2016).

A historical review also makes it difficult to use participatory methods in a practical and meaningful manner. The time period is long and there are at least five key phases of negotiations, so any meaningful contribution offering insight into changes and stability of negotiations and structures over time would have required a significant number of interviewees. Identifying a sufficient number of negotiation participants involved in each phase and representing a variety of countries, planning and conducting the interviews potentially in numerous countries, and processing and integrating the interview data would have constituted a significant methodological component and added considerable additional time to the project. In addition, participants in negotiations, particularly from developing countries, are likely to report that developing countries have struggled to achieve their objectives or have experienced limitations on their bargaining power within negotiations, since this is well-documented and forms a key part of the motivation for the project. The aim of using a historical institutionalism approach is to reveal features of the institutional design and development that have shaped the experience of participants within, thereby providing a new angle and insight that will add to existing analysis and observation of the North-South dynamic within negotiations and the experiences of

participants over time, adding to our understanding of why participants experienced what they experienced and why the North-South division has remained prominent.

Qualitative analysis in this thesis takes the form of a longitudinal case study using processual data from negotiations and policy output, with the UNFCCC as the subject. In terms of the UNFCCC as an institution, there is a clear temporal boundary to the beginning of the case study, since the founding treaty was signed in 1992 following a series of organised negotiations under the UN. Analysis covering the period from creation of the Convention to the Paris COP-21 in 2015 is a long time, but will allow the greatest depth of analysis possible and is necessary to fully investigate the process whereby institutional design and initial rule creation led into ongoing policy development, and ultimately facilitates comment on the influence of institutional factors in policy making that includes the most recent milestone in the regime's progression, cemented at Paris. The significance of COP-21 means it provides a natural temporal boundary to end the case study. Based on its centrality to negotiations as a whole and the justice of climate governance more specifically, the focus of the project on climate finance has been explained above. In practical terms, when UNFCCC policy covers a wide range of themes and areas, the focus on climate finance makes a detailed assessment of how the UNFCCC functions possible within the time and space constraints of this project.

First, all relevant sections and references to climate finance policy were extracted from official COP policy documents. Then the relevant ENB issues for the COP meetings were searched using a consistent set of key words to identify commentary about and statements from Parties relevant to climate finance. These were extracted and matched with corresponding sections of final policy from the official UNFCCC documents. Party submissions and other processual documentation on relevant policy topics referenced in either the ENB issues and UNFCCC policies were obtained and used to add additional evidence to official policy output and ENB commentary. Supplemented by secondary research and other external commentaries on negotiations from NGOs, for example, these multiple sources allowed a form of triangulation in the absence of viable quantitative or multiple methods. The objective was to identify evidence from matched data that initial institutional design and subsequent structural influences have shaped actors' interaction in the policy process and the outcomes from it, building up a detailed picture of policy development and institutional functioning that facilitates generation of a temporally constructed narrative offering an insight into the role of institutional rules and actor behaviour within the UNFCCC. A detailed step-by-step plan for undertaking the analysis is set out below.

4.3 Mapping initial conditions

Central to historical institutionalism is beginning empirical analysis by mapping the initial conditions of the institutional context that is the subject of analysis. This historical starting point is important because the processes involved in institutional influence on actor behaviour are sensitive to initial conditions; Steinmo (2008, p. 165) explains that by 'deepening and enriching their understanding of the historical moment and the actors within it', historical institutionalists 'are able to offer more accurate explanations for the specific events that they explore'. To understand the actions of political actors, 'one must take cognizance of the historical development of the institution, and the original, distinct culture and problems in which it arose' (Sanders 2008, p. 39). In other words, the initial rules created at the origin of the institution can provide an insight into how actors, in the context of the existing political and institutional landscape, shaped creation of the new institutional structure. Likewise, these initial conditions can lock in particular coalitions and power distribution, affecting behaviour within the institution for some time as actors seek to work within or disrupt institutional constraints; 'for those who are disadvantaged by prevailing institutions, adapting may mean biding their time until conditions shift, or it may mean working within the existing framework in pursuit of goals different from—even subversive to—those of the institution's designers' (Thelen 1999, pp. 385-386).

Given the significance of initial conditions and institutional creation, historical institutionalist analysis must give attention to how initial institutional design has gone on to affect the way actors approached the relevant problems through policy creation and how the initial institutional rules reflect and/or create particular power dynamics and relationships between actors. In the UNFCCC case, it is the Convention that underpins the institutional environment and the literature review established that several key controversial areas from the broader arena of development and climate finance were reflected in the Convention. Historical institutionalism suggests that this will have contributed to ongoing policy design and actor behaviour, and this thesis has sought to identify this influence and how it has reinforced injustice and North-South power inequalities. Accordingly, analysis of the UNFCCC Convention and the influences on its formulation were an essential first step in this project's methodology.

4.4 Indicators of institutional influence

Historical institutionalist research involves 'explaining real world outcomes, using history as an analytic tool' and engaging with 'the ways in which institutions shaped political outcomes' (Steinmo 2008, p. 157). In line with this objective, the bulk of the research in this thesis involved processing appropriate source material to facilitate the search for evidence

that policy actors have been influenced or constrained by the layers of rules and structures that have built up over time within the UNFCCC, particularly in terms of power distribution, coalition building, incentives and expectations, and policy choices. Part of this involved looking for self-reinforcing rules (formal policies or logics of appropriateness) or self-reinforcing behaviour (e.g. learning effects, alteration of actors' expectations), or a combination of the two (Duit 2007, pp. 1102–1103). In other words, this means using information gathered about the policy process over time to pinpoint sequences of events that show either formal policies or actors' behaviour within an institution reproducing institutional rules, thereby both being influenced by and reinforcing institutional structures that themselves reflect particular problem definitions, priorities, solution preferences and shared understandings. Hotimsky et al. (2006) point out that actor behaviour can also be influenced by logics of consequences based on formal rules and assessments of costs and benefits, and by logics of appropriateness where actors are guided by what they deem as legitimate and how they perceive other actors' expectations.

In the context of these various logics of behaviour it is important to acknowledge the role of power within the social context of an institution, and consider when actors have power to shape the policy agenda or manipulate shared understandings and the behavioural expectations they generate, in an effort to reinforce or alter institutional structures and advance their own interests. In turn, the effect of such manipulation on the disruption or maintenance of institutional arrangements must also be queried (Hotimsky et al. 2006). Underpinning this analysis was the search for evidence of institutional reinforcement and/or change and the relationship between such observed changes and policy paths and expectations already in place. Incremental change was the most likely form of change; since the UNFCCC remains intact as the site of global climate governance (albeit with other sites of governance emerging at multiple scales, see section 3.2.2 above), a critical juncture where the institution was replaced with another has obviously not occurred. Historical institutionalists claim that 'aggregate outcomes need to be understood in terms of the actions and behavior of individuals behaving strategically' (Thelen 1999, p. 377), so tying the various threads of institutional influence together into a temporally constructed narrative was necessary to identify and understand this strategic behaviour and how it leads to the aggregate outcomes. To guide the research, specific mechanisms that can indicate institutional influence on actors and policy outcomes are outlined below:

- Evidence that the behaviour of actors has been stimulated and constrained by structural influences on problem definition and policy options (Thelen and Steinmo 1992).

- Evidence that institutional design and rules reflected power asymmetries, problem definitions, ideology, objectives and shared understandings present in the prevailing national or international system, and subsequent reinforcement of these structural features and policy paths (O'Riordan and Jordan 1999, Hotimsky et al. 2006).
    - Evidence that institutional design locked in these power asymmetries and other features, benefitting particular actors and resulting in advantageous rules and norms that reinforce these benefits (Mahoney 2000, Pierson 2004).
- Evidence of "social coalitions" of actors that drive the creation of institutions and are vital to their ongoing stability, even if the constituents of the coalitions change. In turn, evidence of coalitions trying and/or failing to gather sufficient strength required to bring about significant institutional change (Hall 2016).
- Evidence of institutional, ideological and social factors influencing how preference weights are applied by actors (Hall 2009) and how actors' interests are expressed in political behaviour.
    - Evidence that institutional rules and structures have shaped the identity, self-image and preferences of actors (Hall and Taylor 1996).
- Evidence of networks reaching beyond the UNFCCC and connecting it with other institutions, benefitting particular actors or coalitions while further reinforcing expectations and leading actors to make choices in line with the relevant policy, as well as increasing the strength of coalitions required to alter relevant policy paths (Pierson 1994).
- Evidence of critical junctures where exogenous or endogenous events disrupt the stability of the institution and established policy paths, creating opportunities for major institutional reform (Pierson 2004).
- Evidence that institutional configurations and rules have suppressed the ability of actors to articulate their interests and succeed in having them accepted as legitimate concerns or grounds for change within the political process (Vatn 2015).
- Evidence of overarching policy paradigms, which have shaped goals and problem definitions within the policy process and have become integrated into the institutional design and structure itself (Greener 2002).
    - Mechanisms of policy stability should be considered within paradigms, in order to extend our understanding of how the institutional design of the UNFCCC has shaped actors' behaviour alongside the signals, reward and penalties that policies themselves provide (Pierson 2000).
- Evidence that uncertainty about medium and long term impacts of climate change affected the initial configuration of power, knowledge and formal institutional

properties and, in combination with the overarching policy paradigm, shaped states' perceptions of the climate change problem and potential solutions, and their willingness to adhere to commitments (Haas 2004).

- Evidence that competing interpretations of institutional rules have mobilised different coalitions into movements seeking particular interpretations of these rules in policy making (Mahoney and Thelen 2009).

4.5 Data sources

Taking a historical view requires a long time-period for inquiry, but UNFCCC negotiations and policy are well-documented and UNFCCC documentation is largely publicly available, providing primary sources covering the entirety of the period in question. The full range of data sources that were used for the qualitative analysis is set out here:

4.5.1 Official COP output

The key primary source for analysis of how the UNFCCC itself has evolved was official policy documents produced at each annual COP meeting, beginning with the 1992 UNFCCC Convention itself then continuing in 1995, before which no COP was held because the UNFCCC was being ratified. These documents detail the policies agreed by UNFCCC Parties across the spectrum of UNFCCC governance, and therefore represent the official output of the institution. This can be construed as the rules created by the institution that detail what is expected of Parties and how policy areas will function. Content includes the official institutional link between the COP and GEF, guidance from the COP to the GEF and other funds created subsequently, the governing instruments of the Adaptation Fund and GCF, and specific climate finance commitments and instructions, as well as myriad other references to climate finance contained within other policy areas such as guidance for national governments' communications to the UNFCCC and deforestation policy. The detail and specificity vary, but this is the highest level of policy and covers all Parties, so granularity in terms of implementation by each national government is not included.

4.5.2 Earth Negotiations Bulletin

Official COP output is vital to show what policies have been agreed by Parties and how institutional rules are developing, but these documents cannot tell us how that agreement has been reached or reveal the process of negotiation. In order to go beyond COP output, Earth Negotiations Bulletin (ENB) commentaries offer the best available insight into negotiation processes. The ENB is a balanced and independent service produced by the International Institute for Sustainable Development (IISD), a Canadian non-profit organisation. ENB staff produce a 2-4 page summary and commentary immediately after

each day of UN environment and development negotiations, including UNFCCC negotiations, and a longer summary at the end of each meeting. The service began as an NGO joint initiative at the 5th preparatory meeting in advance of the 1992 Earth Summit, when the Convention was signed, and has continued ever since (IISD 2017). The ENB records used for this project cover main annual UNFCCC COP meetings, multiple meetings of states under the Subsidiary Body for Implementation (SBI) and Subsidiary Body for Science and Technology Advice (SBSTA) where policy is developed and brought to the COP meetings. In addition, meetings under the AWG-LCA and ADP processes that led to COP-15 in 2009 and COP-21 in 2015 respectively, and various other informal or intercessional meetings are included.

UNFCCC negotiations are not minuted or transcribed, but the ENB offers a detailed and consistent commentary that gives some insight into the positions taken by different countries, key points of disagreement and how negotiations progressed in advance of the final policies articulated in official COP output. This insight is vital, since historical institutionalist analysis involves seeking evidence of whether and how actors have adapted to each other and to institutional rules, and whether and how previous policy has shaped expectations and negotiating positions, for example in terms of how developing country actors alter their demands or choose language that indicates they have adapted to institutional rules. The ENB has been used as an authoritative source of information about negotiations by numerous scholarly publications (e.g. Müller, 2006, p. 6,12,16,23-24; Betzold, 2010, pp. 138–140; Winkler and Beaumont, 2010, p. 644,646; Rietig, 2014, pp. 381–384; Pauw et al., 2018, p. 24), and more centrally in a small number of other analyses of UNFCCC negotiations, such as Castro et al. (2014), to provide detailed insight into the policy process.

4.5.3 Party submissions and other UNFCCC documentation

Parties are able to submit documents to the UNFCCC before and during meetings, providing a means to articulate their perspectives or make proposals on how policy should be drafted. With official policy the result of multi-Party negotiations and Parties only having limited time to state their positions within negotiations, submissions from Parties can give an indication of policy positions that may go beyond what is captured in the ENB. These are a less comprehensive primary source, since the number of submissions and the particular Parties that make them is highly variable at each stage and topic of policy making. In addition, discussions under the SBI and SBSTA were sometimes referred to as policy was developed leading up to a COP or to reveal policies that were negotiated but then not adopted officially at a COP and therefore not in COP reports. For the purposes of this analysis, Party submissions and SBI/SBSTA reports were used to add additional insight into Party

positioning to supplement ENB commentary, in relation to existing policies and institutional rules and norms, the strategies they use when presenting their positions, and, crucially, the articulation of policy proposals and the language they use. Whenever relevant party submissions or SBI/SBSTA reports or other UNFCCC documents are mentioned in the ENB or official policy documents, or identified through other secondary sources, they were obtained from the UNFCCC's document portal.

4.5.4 Secondary literature and UNFCCC reports

Secondary literature is particularly important for analysis of institutional design. The UNFCCC was created in a process lasting from around 1990 until the UN Conference on Environment and Development (UNCED) in 1992, when the Convention was signed. There was obviously no prior institutional policy, and ENB commentary did not begin until later in the process, but it is vital to get an insight into the process of creating the UNFCCC as the basis for the institutional processes under examination in this project. As a result, books, news reports and peer-reviewed literature take on a greater significance for this stage of analysis because they offer the only means to get this kind of insight that is coeval to the design process itself. Throughout the period under analysis, however, secondary sources commenting on or analysing events in negotiations and policy output from the UNFCCC offer additional insight into the behaviour of actors and their policy choices, thereby adding an additional layer of richness to the temporally constructed narrative. In some cases, secondary literature is produced for or published by the UNFCCC, such as notable assessments of climate finance flows.

4.5.5 Breakdown of sources and documents

In the context of the UNFCCC institution, this project has made use of official negotiation reports and policy documents in combination with ENB commentary and Party submissions to ensure the most comprehensive basis from which to assess both institutional rules and actor behaviour adapted in line with such rules. The table below details all the documents that were analysed. A detailed list of UNFCCC and ENB documents can be found in Appendices I & II at the end of the thesis.

Document	Source	Availability
UNFCCC Convention (4.5.1)	UNFCCC	Available on UNFCCC website
UNFCCC COP reports (4.5.1)	UNFCCC	All available on UNFCCC website
Daily Earth Negotiations Bulletin commentaries from COPs and other UNFCCC meetings (4.5.2)	International Institute for Sustainable Development	Available on IISD website for the UNCED and UNFCCC meetings dating back to INC-11 in 1995 (before COP-1)
Submissions by Parties and other UNFCCC procedural documents (4.5.3)	UNFCCC	Relevant submissions and other documents can be obtained from UNFCCC document portal
Secondary sources and other UNFCCC reports (4.5.4)	Library and other scholarly sources, NGO and research organisation websites.	N/A

4.5.6 Process

Gathering processual data will involve several stages:

1. **Source material:** The UNFCCC Convention document and both contemporary and later commentary on the treaty and the two-year process of its design under the Intergovernmental Negotiating Committee set up by the UN General Assembly.

   Objective: *S*ystematically identifying policy clauses and wording related to institutional design generally and to climate finance specifically. This includes the foundation of the financial mechanism and selection of the GEF but also other, less immediately significant sections that are linked or refer to, or have potential implications for, how actors will relate to each other.

   Process: Manually reading through the Convention document and extracting clauses identified as relevant to climate finance and institutional design.

2. **Source material:** UNFCCC reports from annual climate negotiations (COPs) since 1995 and negotiations under the Kyoto Protocol (CMP) once these began in 2005. Official COP and CMP reports contain the high-level policies agreed by all UNFCCC Parties, which set expectations of action that Parties should take, underpin the creation, implementation and oversight of policies by UNFCCC sub-bodies, and guide creation of subsequent policy.

Objective: Analysis of Articles (policies) and other sections relevant to climate finance, to create a comprehensive catalogue of UNFCCC climate finance policy output. This output is a vital part of the institutional "rules" that form the structure in which actors are operating and an accurate and comprehensive collection of data is essential to identify continuity and change in policy design and how policy output reflects what actors and coalitions seek to achieve.

Process: Work through the policy documents manually, copying or summarising relevant sections/paragraphs of policy into Microsoft Excel spreadsheet. After completing each document, check for missed references or paragraphs by searching for these key words: "financ" (to cover finance and financial), and "fund" (to cover fund and funding).

3. **Source material:** Daily commentaries from COPs and other intermediate UNFCCC meetings produced by Earth Negotiation Bulletin, part of the independent International Institute for Sustainable Development. These documents are the closest to meeting minutes that is available for UNFCCC negotiations and conferences. A 2-4 page report is produced each day for UNFCCC COPs and intermediate meetings, dating back to the UNCED and recommencing with INC-11 before the first COP in 1995, and a longer summary report is produced for the final day of each meeting.

   Objective: Analyse commentaries for relevant information concerning how different states negotiated climate finance policy. The key aim with these documents is to look for evidence of which actors are successful in achieving their policy goals, how coalitions formed and functioned, how restricted actors are in their choice of policy and how layers of policy have influenced North-South (or other) negotiating dynamics. Such evidence can then be placed in the context of policy output and development, facilitating analysis of actor behaviour in relation to institutional rules and thereby identify mechanisms of institutional influence and events leading to institutional reinforcement and change. Additionally, of interest will be evidence that states appealed directly to justice terminology or principles and demonstrated normative positions during negotiations.

   Process: Reading through each document was impractical for the volume of documents/pages that need to be reviewed (615). Instead, searching using this set of key words allowed for as comprehensive a review as possible to be performed:

   - "financ" (to cover finance, financial and financial mechanism, as well as public finance and private finance)
   - "fund" (to cover fund/s and funding, LDC Fund and Adaptation Fund, public funding and private funding)

- "GEF"
- "GCF"
- "SCCF"
- "LDCF"
- "cost"
- "support"
- "resource"
- "assist" (to cover assist and assistance – often used as a catch-all for finance, capacity building and technology transfer)
- "hist" (to cover historical responsibility/ies)
- "MOI" (acronym for "means of implementation," a term used to refer to financial and other forms of support in later stages of negotiations).

As with any manual process, it is possible that some relevant statements were not captured but this large set of keywords covered the vast majority of ways that climate finance is referred to within the negotiations.

4. **Source material:** Submissions by Parties to UNFCCC COPs and other meetings and sub-bodies, reports from SBI/SBSTA negotiations and other UNFCCC documentation. Parties are often invited by the COP or sub-bodies to provide input to the policy process through dedicated submissions, which vary in length and detail from one paragraph to several pages. Parties can make individual submissions or joint submissions with other members of a particular bloc or other Parties with whom they have aligned on the issue in question. SBI/SBSTA reports detail policy development and sometimes policies are agreed at these meetings but do not become official policy output. Whenever relevant submissions, SBI/SBSTA reports or other UNFCCC documents are mentioned in official policy or ENB commentary (with sufficient information to obtain them from the UNFCCC website's document portal – usually a document code) they were included in data gathering.

   Objective: To identify additional evidence of how Parties have approached policy formation and the influence of previous policies.

   Process: Manual analysis of submissions and matching relevant position statements or proposals to policy output and ENB commentary.

5. **Source material:** Secondary sources such as academics, media outlets, research organisations and NGOs. There are many such sources that document events within UNFCCC negotiations and analyse policy developments and how states have interacted.

Objective: To obtain additional insight into negotiations, Parties' policy positions and negotiating dynamics, including North-South relationships.

Process: Any relevant output obtained was incorporated into data gathering.

4.6 Conclusion

This chapter has explained how this project has gathered data and will use historical institutionalism to perform qualitative analysis of the origins and development of the UNFCCC climate finance policy between 1992 and 2015. A range of primary and secondary sources were used to gather data and facilitate the application of a historical institutionalism approach to a global governance regime where repeated rounds of negotiation make it different from more bureaucratic or governmental institutions that are the traditional focus of historical institutionalism. Identifying key theoretical mechanisms indicates how historical institutionalism provides theoretical tools for building up temporally constructed narratives that examine how the institution was designed, how actors have behaved, and how layers of policy have built up over time. Within these narratives, the objective is to identify micro-processes that show how institutional rules and structures have influenced actor behaviour and policy output. Key to the analysis is how coalitions of actors have formed and interacted with each other in the policy process, in the context of the initial institutional design and the subsequent evolution of rules and structures that have reinforced particular power distribution or policy preferences. In doing so, legacies of North-South power imbalances and the wider development assistance sector can be identified and traced over time, adding valuable new insight to the existing understanding of how political contestation over climate justice and key elements of climate finance policy have shaped outcomes of the UNFCCC climate finance governance process. The analysis using the approach set out here will commence in the next chapter.

Part II:

HISTORICAL ANALYSIS AND INSTITUTIONAL INSIGHT

5. Voluntary climate finance and the assessment of needs

5.1 Introduction

Throughout the UNFCCC's development, political decisions driven by donor countries' perceptions of what is feasible have dominated finance policy and dictated the US$100 billion funding pledges that are the pinnacle of UNFCCC climate finance policy, and climate finance flows remain inadequate for meeting the needs of developing countries for taking action in response to climate change (Ciplet et al. 2013, pp. 56–57). Consequently, the policy process is characterised by contestation over how to get developed countries to commit to providing funding and how to ensure that these commitments are fulfilled (Pendleton and Retallack 2009). The political or power dimensions of donor influence over the UNFCCC climate finance policy process have roots in the strong connections between climate finance and the broader development assistance system (Haites 2011, Gupta 2014), which was formed largely under the control of developed countries and according to their willingness to provide finance, and is associated with considerable Southern distrust of Northern governments (Young 2002b). This history of distrust and associated injustice affects the UNFCCC policy process, as developing countries are influenced by histories of inequity and react to years of unmet expectations of climate finance (Bulkeley and Newell 2015, p. 49, Flannery 2015, p. 86). Developed countries, meanwhile, are influenced by the unwillingness of their taxpayers to dramatically increase financial flows to developing countries over and above existing aid budgets (Pendleton and Retallack 2009, p. 23).

Historical institutionalists assert that institutional design reflects the broader systemic environment in which institutions are formed (Thelen and Steinmo 1992), which in this case is the history and uneven power distribution of the development assistance system. Others argue that policy paradigms shape how actors perceive the problem an institution is seeking to address (Hall 1993); here there is clear North-South split, with developed countries seeking to voluntarily mobilise finance independently of a clear needs- or ethically-based framework, and developing countries seeking to ensure that finance is adequate to meet their needs and account for developed countries' historical responsibility. Historical institutionalism suggests that these ideas or problem definitions are likely to mobilise groups of actors to preserve or re-shape the UNFCCC's institutional structure (Sanders 2008). In addition, there is still considerable uncertainty surrounding the calculation of what will be required to fund the global response to climate change, and

thereby meet the needs of developing countries and fulfil the objectives of the UNFCCC (Bouwer and Aerts 2006). This kind of uncertainty is likely to reinforce initial power distribution and contribute to actors' perceptions and preferences in the policy process (Haas 2004).

Donor control over finance flows, and a potential policy paradigm based on this premise, is a significant thread throughout the history of climate finance and North-South division in the policy process. Investigating mechanisms that have led to institutional structures reinforcing the paradigm will capitalise on the retrospective approach of historical institutionalism by showing how actors gained distributional advantages from the UNFCCC's design and layers of subsequent policy (Bennett and Elman 2006), and how these institutional structures shaped the goals and preferences of actors and their expectations of each other's behaviour (Hall and Taylor 1996, Greener 2002). The aim of this chapter is to investigate the extent to which these advantages shaped North-South policy contestation and perpetuated donor control over finance flows, in the context of the inadequate levels of climate finance that has so far been the result of 25 years of policy. Accordingly, this chapter will first assess the Convention and its creation process to identify the extent to which a voluntary paradigm influenced actors' perceptions and objectives, and the initial institutional design. Secondly, the chapter will focus on three sub-themes to examine how the voluntary paradigm became embedded in the UNFCCC's institutional rule structures: calculation of climate finance needs, the basis and specificity of developed countries finance commitments, and institutional influence on whether those commitments are fulfilled.

5.2 Roots of the voluntary paradigm in the Convention

Gupta (2014, p. 54) argues that in the years leading up to the UN Conference on Environment and Development in 1992, when the UNFCCC was signed, a liability paradigm was initially prevalent in statements at various climate conferences, such as Noordwijk in 1989 and the Second World Climate Conference in 1990, which would have brought a legal basis for developed countries' obligations to reduce emissions and compensate other countries for climate change harms. In addition, a duty to provide compensation for the alternative, more costly, development paths that developing countries would need to take as a result of climate change was recognised at various climate conferences such as The Hague in 1989 (Zaelke and Cameron 1990, p. 283). As negotiations leading to the UNCED (where the UNFCCC was created) began, developing countries stressed their need to develop and what they saw as the obligation of industrialised countries to provide financial resources since they held responsibility for causing the climate change problem (Bodansky 1993, p. 480). The G-77

used strong normative rhetoric, such as '"guilt," "historical responsibility," "compensation for past deeds" and the "right" of the poor to 0.7 percent of the GNP of the rich in the form of ODA' to press for a moral, compensatory basis for the global response to climate change (Goldemberg 1994, p. 179).

However, the reality of what this basis for North-South burden sharing would actually entail in financial terms was made clear when the UNCED Secretariat released an estimate that the "new and additional" resources required for fulfilling Agenda 21 (a broader environment and sustainable development agenda including climate change) would amount to US$125 billion per year. This frightened many of the developed countries participating in the UNCED negotiations and illuminated the inadequacy of the existing voluntary contributions to the GEF, which had been funded to the tune of only US$1 billion during its pilot phase (Goldemberg 1994, pp. 179–180). Even delegates of a typically more progressive country like Sweden acknowledged that the issue was difficult to tackle in an economic climate where developed countries felt funds were limited, and when the notion of incremental costs (and therefore the magnitude of potential funding needs) was 'still not sufficiently explored' (Kjellen 1994, pp. 164–165).

As negotiations to create the UNFCCC continued, developed countries consistently described provision of finance as "assistance" (Dasgupta 1994, p. 135), and remained firm in undertaking commitments to provide finance to developing countries because of their greater capacity to pay, not because of their historical responsibility (Bodansky 1993, p. 480), thereby de-legitimising developing countries' perspective. The US in particular had been determined to avoid any normative language referencing "guilt" or responsibility in the Convention text (Goldemberg 1994, p. 181). Although most developed countries, with the notable exception of the US, accepted the need to provide funding to developing countries (Dasgupta 1994, p. 135), developed countries generally remained strongly resistant to specific commitments on financial resources (Djoghlaf 1994, p. 107). The firm stance demonstrated by developed countries suggests the presence of a coalition of actors with aligned preferences seeking to influence institutional design. In this case, a leadership paradigm emerged within the negotiations over creating the Convention, casting developed countries as leaders rather than polluters, thereby obscuring their responsibility for causing harm and obligation to provide compensation and instead implying that developed countries would voluntarily reduce emissions, provide financial and technological support to countries affected by climate change, and allow space for developing countries to continue developing (Gupta 2014, p. 54).

From a strategic perspective, a paradigm of leadership or, more specifically to climate finance, voluntarily assisting developing countries with excessive burdens, was more

acceptable for developed countries fearful of binding commitments to cover the vast potential costs involved in financing developing countries' ongoing, and relatively uncertain, future needs for responding to climate change (Schipper 2006, p. 86). North (1990) argues that reducing the uncertainty involved in interaction between states, particularly where information is lacking, is a key function of institutions. Institutionalising a frame or paradigm where climate finance was built on a foundation of voluntarism or assistance, rather than as a moral or leadership obligation, would cap the financial uncertainty involved in co-ordinating global climate policy amongst developed and developing countries, although obviously to the advantage of developed countries by effectively giving them control over how much finance to provide. This control is the key result of the shift from a liability to a leadership paradigm and the resultant voluntary underpinning for how climate finance should be structured. Institutionalisation of the voluntary paradigm can be seen in the Convention text, so is vital to understanding how the UNFCCC institutional design set the stage for policy development.

The final Convention text includes several provisions making reference to or briefly outlining the financial commitments that are expected from developed country Parties, and while voluntarism is not mentioned, the Convention includes no clauses that would take control away from donor countries. Article 4.3, on commitments for climate change action, includes an expectation that developed countries will provide financial resources needed to meet the "agreed full incremental costs" of developing countries (i.e. costs over and above business-as-usual spending). However, this is only in relation to carrying out specified climate change-related actions, including adaptation, education and awareness, quantifying emissions and the like, and notably does not cover mitigation actions. The terminology of "agreed full incremental costs", which has subsequently become a standard part of UNFCCC climate finance policy, was a key compromise in the final stages of negotiation and 'the enshrining of incremental costs in the Convention without any prior analysis, understanding, definition or clarity, was a means of maintaining ambiguity' regarding what financial and other assistance UNFCCC policy could require developed countries to provide (Rahman and Roncerel 1994, p. 260).

Article 4.3 goes on the state that 'the implementation of these commitments shall take into account the need for adequacy and predictability in the flow of funds'. Consistent with the perspective demonstrated in negotiations leading up to the UNCED, developing countries perceived Article 4.3 as a commitment by developed countries to provide financial resources and a clear indication that progress towards achievement of the Convention's objectives was dependent upon fulfilment of these commitments (Hyder 1994, p. 217). However, the text does not bind developed countries and provides little for developing

countries to lean on in holding developed countries to account or bringing about clear commitments in policy. It also implies that developing countries retain control over how they relate finance commitments to notions or calculations of "adequacy", thereby implicitly reinforcing the voluntary paradigm and excluding principles of compensation.

Article 4.8 instructs that developed country Parties should take into account the 'the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures' in implementation of the activities set out in Article 4, such as small island countries, fragile ecosystems and areas prone to natural disasters. This is expanded upon by 4.9, which specifies that 'Parties shall take full account of the specific needs and special situations' of LDCs with regard to funding and technology transfer.[1] Despite making direct reference to needs, Articles 4.8 and 4.9 again left the emphasis with developed countries to determine what finance they will provide. In terms of needs assessment procedure, Article 11.3(d) states that the financial mechanism shall include 'determination in a predictable and identifiable manner of the amount of funding necessary and available for the implementation of this Convention and the conditions under which that amount shall be periodically reviewed.' One again, though, no principles or process for determination of funding needs are specified, leaving this policy area on very vague foundations.

Although the Convention includes several references to the needs and circumstances of developing countries and the provision of adequate and predictable funding, overall the Convention's initial policies on North-South financial transfers reflect the approaches advocated by the US and other developed countries (Nitze 1994, p. 194). Areas that could have seen control moving from donor countries to the plural body of the UNFCCC, such as assessments of need or definitions of "adequacy", were left vague; the Convention did not specify how financial commitments would be structured and connected developing countries' needs, how needs would be defined or assessed, or appropriate timescales for fulfilment of finance commitments. Ambiguity may seem to be the opposite of reducing uncertainty, but the ambiguity left developed countries protected from the uncertainty of firm moral or legal responsibility for the spiralling costs that developing countries would incur in responding to climate change. While this did not necessarily

[1] As a result of these main clauses, as negotiations proceeded, climate finance has been dealt with under the financial mechanism discussions supplemented by discussions and policy regarding adverse effects of climate change and policy implementation, relating Article 4.8 and 4.9 and generally referred to as "adverse effects".

cement a voluntary paradigm, the way it advantaged developed countries certainly created a foundation for a voluntary framing to become institutionalised.

5.3 Voluntarism and assessment of funding needs

The previous section identified the roots of a framing or policy paradigm of voluntary commitments in the Convention, after developed countries prevailed in policy negotiations. The advantages gained from this aspect of institutional design reflected North-South division and power inequality; exploring how the voluntary paradigm has been reinforced and sustained, and determining how it has contributed to subsequent policies within UNFCCC climate finance, is important for identifying how institutional influence reinforced or diminished this aspect of Northern advantage. The first key area of policy concerning levels of finance is the assessment of developing countries' needs, in terms of how climate change will affect them and the support they will need to implement policies and activities in pursuit of the mitigation and adaptation objectives of the UNFCCC regime. This is a highly complex area (see 2.2.1 above) but one which is central to understanding how UNFCCC policy relates to the broader climate finance sector and which states or groups of states, if any, consider that UNFCCC policy and the climate finance it leads to are "fair" and "adequate".

While the Convention briefly indicated an expectation that developed countries ought to take into account developing countries' needs, it gave no indication of how to conduct such assessments or how they would or should influence finance commitments made by developing countries. In addition, the Convention failed to define what "adequate" finance will entail, and therefore how "needs" should be defined or conceptualised within institutional processes, leaving considerable ambiguity around what the basis of financial needs assessment should be (Verheyen 2002, p. 132). This section will trace how ambiguity around finance needs assessment was initially addressed in the four years following the Convention's signing, as COP negotiations began and institutional arrangements with the GEF were established. The ongoing influence of the voluntary paradigm will then be examined through subsequent negotiation rounds as developing countries sought to ensure their needs formed a prominent part of the UNFCCC climate finance system, while developed countries sought to minimise the extent to which UNFCCC policy would move away from a basis of donor willingness to take recipient needs into account when making finance commitments.

5.3.1 Initial operationalisation of needs assessment

At the first COP in 1995, decision 11/CP.1 paragraph 1(a)(vi) briefly describes a reciprocal relationship between developed country Parties and the operating entity of the financial

mechanism, whereby information flows to Parties 'to assist them to take into full account the need for adequacy and predictability' of finance, and requires the operating entity of the financial mechanism to use needs assessment procedures created by the COP under Article 11.3(d) of the Convention. Needs assessment arrangements were mentioned the following year in the memorandum of understanding (MOU) that established the connection between the UNFCCC and the GEF (governed by the GEF Council), which was an important step in institutionalising the selection of the GEF as the first operating entity of the financial mechanism. The MOU was adopted in 1996, and includes a clause that 'COP and the [GEF] Council shall jointly determine the aggregate GEF funding requirements for the purpose of the Convention. Procedures to facilitate such a joint determination will be developed by the COP and the Council and annexed to this Memorandum' (decision 12/CP.2, Annex, 9). Werksman (1996, p. 59) describes North-South contestation over policy that could disrupt developed countries' advantage gained from the role of the GEF, when he argued that if the negotiations on funding assessment

> *shift the power to set the GEF's replenishment goals toward the COPs, where developing countries hold a numerical majority, demands might quickly outstrip donors' willingness to contribute. Should the discretion continue to rest with the donors, the amount of funds available through the GEF may continue to bear no relationship the Conventions' challenging objectives.*

These discussions represented a key opportunity to reduce the original ambiguity surrounding needs assessment processes created by the Convention, and for the UNFCCC to either reinforce power distribution and structures from the voluntary, donor-led development aid system or break away from these influences with new institutional rule structures. Not surprisingly, developed and developing countries disagreed over what should be included in the determination of funding requirements. The GEF Council, widely considered to be a donor-dominated body (see 2.3.7 above), approved a draft annex to the COP/GEF MOU on the topic, but the G77/China group of developing countries tabled its own draft annex with a different set of inputs to the assessment process, including specifying ownership or oversight of the needs assessment process by the COP rather than the GEF Council. Negotiations continued at SBI-4 in 1997 (before COP-3), where 'Argentina, India, Iran and Kuwait supported the G-77/China proposal', and the Philippines noted that 'the G-77/China proposal responds to the needs of developing countries' and highlighted the desire for COP to retain control (ENB-39). Several developed countries sought to prevent further discussions beyond those at the GEF Council that had produced the draft annex (ENB-39, and written submissions from the US and EU in FCCC/SBI/1996/MISC.1), and also

challenged the way the G77/China proposal interpreted language from the Convention (ENB-39).

The annex (FCCC/SBI/1996/14) eventually adopted as policy was 'derived from the GEF-adopted annex' (ENB-39) but it does note that 'the COP will make an assessment of the amount of funds necessary to assist developing countries, in accordance with guidance provided by the COP, in fulfilling their commitments under the Convention over the next GEF replenishment period', taking into account needs that developing countries articulate in their national communications to the UNFCCC. However, the first key indication that the opportunity to resolve the ambiguity of the Convention with clearer institutional rules was not taken is the lack of detail in the annex about how the COP will undertake funding calculations, and therefore it certainly 'does not amount to a full financial needs assessment, in any sense of the term' (Khan and Müller 2011, p. 14). Secondly, the MOU annex ties assessment of funding needs to GEF replenishment cycles, which are the periodic phases where the GEF Council and donor countries agree between themselves on how much will be contributed to the GEF over the subsequent years of the period. This tie was a clear reinforcement of donor control over UNFCCC policy by giving prominence to a GEF-controlled process.

The annex does indicate that the GEF 'will take into account fully and comprehensively the COP's assessment' and report back on this after each replenishment cycle, and envisages that GEF reports in advance of a replenishment period will instigate a fresh review by the COP of necessary and available funding for climate change activities in accordance with Article 11.3(d) of the Convention. However, in practice, GEF assessments are submitted to potential donor countries to consider during negotiations over GEF replenishment, and it is the outcome of these negotiations that determines GEF funding for the subsequent cycle; as a result, 'for many years, the decisions taken by the GEF on these issues have obviated the practical need for the COP to assess the level of funding in the manner anticipated in the Annex to the MOU' (Yamin and Depledge 2004, p. 268). This shows that contributions to the GEF remained a voluntary process rather than a COP-controlled process that might link funding requirements to independent or external needs assessments and issue mandatory targets for developed countries. Consequently, adding needs assessment to the links with an external institution (the GEF) is evidence of a mechanism of policy path reinforcement, making it harder to disrupt the positive feedbacks gained from these arrangements by making it more difficult to alter policy away from its incumbent design when the external institution has a stake or an official role in that policy (Pierson 1994).

5.3.2 *Contestation of the needs assessment policy*

After completion of the COP/GEF MOU annex on determination of funding requirements, developing countries continued to push strongly for a COP-led process to determine funding requirements. For example, at SBI-7 in 1997 (before COP-3), Kuwait went as far as to suggest an amendment to the Convention which would call on Annex I Parties 'to provide financial resources, including technology transfer, determined by the COP to meet the full incremental costs of developing countries' obligations' (ENB-58). In an indication of developing country perceptions, 'Saudi Arabia said the amendment is the only way to ensure necessary funds are forthcoming' but, not surprisingly, it was rejected by several developed countries (ENB-58). At SBI-8 in 1998 (before COP-4), the G-77/China, 'supported by Saudi Arabia, China, India, Venezuela and Ethiopia, called on the SBI to identify the needs of developing countries, requesting information from SBSTA and the IPCC' and 'proposed that the item be taken up at all future COPs' (ENB-82). The UNFCCC Secretariat produced a document outlining needs assessment (FCCC/SBI/1998/CRP.1) which was followed by decision 5/CP.4, which built on Articles 4.8 and 4.9 of the Convention by stipulating that further analysis should include identification of the 'specific needs and concerns of developing country Parties' arising from the adverse effects of climate change, and identification and consideration of actions 'to meet these specific needs and concerns'. The contestation over whether the COP can or should conduct needs assessments indicates that there remained a coalition of developing countries actively seeking to change the institutional structure founded on the GEF and its replenishment cycles.

COP-4 policies were reinforced in decision 12/CP.5 (paragraph 3) in 1999, which again specifies that the implementation process for Articles 4.8 and 4.9 will 'identify what actions are necessary under the Convention, including actions relating to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties'. However, these successive COP decisions did little to alter the institutional structure giving control over needs assessment to the GEF, since there remained no reference to particular sources of information or operational guidelines for determining needs, nor a means to measure whether developed countries have delivered commensurate levels of finance. There also is evidence that developing countries' expectations were affected by the voluntary paradigm by beginning to voice demands for finance in a way that recognised that there was no institutional mechanism for linking finance with needs and that, ultimately, developed countries were in control: 'the G-77/China, Nepal and others said developing countries are the most affected by climate change, and Annex I countries must implement their commitments relating to provision of financial resources' (ENB-120).

5.3.3 Renewed drive to give COP stronger role in needs assessment

The institutional structure that saw the COP essentially delegate needs assessments to the GEF as part of its replenishment negotiations remained stable for several years over three funding replenishment cycles. At COP-8 in 2002, however, funding requirements were given renewed attention in decision 5/CP.8 (paragraph 3), which requires the UNFCCC Secretariat, in consultation with the GEF Council, to prepare a report 'on the determination of funding necessary and available for the implementation of the Convention'. That developing countries were able to secure this clause in UNFCCC policy shows developed countries' control of needs assessment, and their subsequent financial obligations, via the GEF was still subject to contestation. Developed countries' response demonstrates their determination to rally their coalition in support of existing policy to prevent institutional change and protect the advantageous policy path:

> *Norway, supported by the US, Switzerland, Norway, Japan, Canada, Australia and the EU, and opposed by India, Malaysia, China, called for the deletion of text initiating a process to aggregate GEF funding requirements for the UNFCCC, as well as a request to the Secretariat to produce a paper for SBI-18 outlining procedures for joint determination of necessary and available funding for UNFCCC implementation.* (ENB-205)

A first report (FCCC/SBI/2004/6) was produced for SBI-20 in 2004 (before COP-10) and focuses mostly on the GEF's replenishment process and funding activities, only mentioning "adequacy" once despite the purpose set out in decision 5/CP.8. However, the future steps section of the report does indicate that the SBI will carry out an 'assessment of the amount of funds necessary to assist developing countries in implementing the Convention over the fourth replenishment period of the GEF' (paragraph 28). Initiation of this second report and the data to be included was the subject of considerable debate at SBI-20. 'Argentina stressed the importance of accelerating the financial needs assessment under the UNFCCC prior to discussions on the next GEF replenishment' (ENB-234), indicating intent to disrupt the existing institutional structure. In contrast, 'Switzerland said the assessment could not be conducted in time for the negotiations on the next GEF replenishment' (ENB-234), and Japan recalled 'the distinct roles of the GEF and COP in jointly determining the amount of available funding', warning against going beyond the remit of the COP/GEF MOU (ENB-242). These statements demonstrate developed countries reinforcing the existing structure and their influence through the GEF.

SBI-20 did instruct the UNFCCC Secretariat and GEF Council to jointly produce a report 'on the assessment of the funding necessary to assist developing countries in fulfilling their commitments under the Convention' (FCCC/SBI/2004/10). This second report

(FCCC/SBI/2004/18) was presented to SBI-22 at COP-10 later in 2004, and summarises the financial needs identified by non-Annex I Parties in their national communications to the UNFCCC, resurrecting a COP-controlled mechanism of aggregating needs that originated in the COP/GEF MOU annex but was sidelined by the prominence of the GEF's own assessments (see 5.3.1 above). The report considers that the US$2.7 billion of projects identified in non-Annex I Parties' national communications 'provides a good indication of the needs of Parties and as such represents the activities for potential funding by the GEF and bilateral, regional and other multilateral channels' (paragraph 31), despite the fact that reporting investment needs is not the primary purpose of national communications. Obviously, the resulting figure is a stark contrast to the much larger funding estimates produced outside the UNFCCC (see 2.2.1 above), but is still higher than the US$0.93 billion allocated to climate change in the GEF's second replenishment period and US$0.77-1.14 estimates for the third replenishment period (GEF 2002).

Discussions on funding assessment under decision 5/CP.8 continued at COP-10 in 2004 with a clear North-South split over the existing institutional structure: the G-77/China said that, in accordance with the COP/GEF MOU, 'the COP and GEF should jointly determine the necessary funding', while 'the US, Canada, EU and Japan supported maintaining the existing modalities for identifying funding' (ENB-254). The resulting policy, decision 9/CP.10, acknowledged that the COP 'did not make a formal assessment or communication of the amount of funds for the purpose of the joint determination that are necessary to assist developing countries as stated in' the COP/GEF MOU annex. However, while decision 9/CP.10 goes on to state that the UNFCCC Secretariat's funding assessment report should feed into the GEF's fourth replenishment, it does not include institutional rules that will create a process to ensure this happens and only 'urges' the GEF council to 'ensure that adequate funding is available to enable developing countries to meet their commitments under the Convention'. As a result, this layer of policy again emphasised the prominence of the GEF, reinforcing existing institutional structures and developing countries' advantage (Pierson 2004). Through the GEF, developed countries retained influence over funding needs assessment and setting funding requirements, instead of these processes moving more firmly under the authority of the COP, where developing countries have greater influence.

This sequence of reports and policies demonstrates renewed attention to needs assessments several years after the MOU annex, which could be construed as developing countries building up a coalition to challenge the incumbent institutional structure and primacy of the GEF. As Hall (2016) suggests, the "network co-ordination effects" of linkage with the GEF have made it more difficult to overcome the policy path that left responsibility

for needs assessment and setting financial requirements with the GEF, since institutional change in this instance was not simply a matter of changing internal rules, but also altering the GEF's replenishment process that had a remit broader than climate change and under the control of developed countries. A full, comprehensive assessment of funding needs was not carried out by the COP and the multitude of external assessments not acknowledged, so the GEF replenishment process remained the central means of securing financial commitments within the UNFCCC. Developed countries were evidently determined to preserve the role of the GEF and resist attempts to give the COP greater control over the needs assessment process, which might lead to a more structured mechanism for dictating what finance they must provide, thereby eroding the voluntary paradigm.

5.3.4 Examining developed countries' finance commitments at COP-15

In 2007 the UNFCCC began leading up to a comprehensive climate change policy milestone to be agreed at COP-15 in 2009. Developing countries continued to draw attention to the challenge of adapting to and mitigating climate change, and the costs associated with responding to this challenge. The 2007 Bali Action Plan, which initiated negotiations leading to COP-15, mentioned 'improved access to adequate, predictable and sustainable financial resources' (decision 1/CP.13, 1(e)(i)), and adaptation policy that included 'financial needs assessments', 'taking into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, especially the least developed countries and small island developing States, and further taking into account the needs of countries in Africa' (decision 1/CP.13, 1(c)(i)). However, this policy platform for the future Copenhagen talks once again reinforced the advantage that developed countries gained from weak UNFCCC policy on needs assessment by failing to articulate a concrete process to assess needs and link the results to financial targets for developed countries.

As negotiations leading up to the Copenhagen COP began in 2007, the UNFCCC Executive Secretary introduced a report by the Secretariat, saying its main findings 'concerned financial and investment flows needed in 2030 to meet worldwide mitigation and adaptation requirements. For mitigation, he identified the need for an additional USD 200-210 billion in 2030' (ENB-336). This assessment of funding requirements was much more comprehensive in scope than previous reports based on Parties' national communications, and it was part of a wave of second-generation studies that produced cost projections for global response to climate change (Narain et al. 2011). Some of these other studies also fed into the UNFCCC negotiation process; for example, at the same meeting in 2007, consultants 'estimated that a total of USD 50-170 billion of additional investment and

financial flows will be needed for adaptation in 2030' and the World Bank 'spoke of the large shortfall between current and needed financial flows' (all ENB-336).

This new wave of more detailed external climate change cost assessments was reflected in renewed attention within negotiations to needs assessment, adequacy and direct reference to external studies. As negotiations continued leading towards the Copenhagen COP-15, at AWG-LCA-3 in 2008 (before COP-14) 'AOSIS proposed an adaptation framework, containing mechanisms to: ensure timely flows of new and additional resources to address immediate and long-term adaptation needs' (ENB-382). At AWG-LCA-6, the African Group 'emphasized [sic] the urgent need for action, and called for a comprehensive international programme on adaptation with scaled-up finance and a target of US$ 70 billion per year by 2020' (ENB-413). At AWG-LCA-7, 'India noted that the new report by the World Bank on the Economics of Adaptation to Climate Change estimates that US$75-100 billion per year is required for adaptation in developing countries. He stressed that this range "is probably an underestimate" but should be used as a starting point for discussions on the scale of resources needed' (ENB-434).

Despite the ongoing prominence of needs in developing countries' rhetoric, there is evidence that their expectations had been shaped by the voluntary paradigm. For example, at AWG-LCA-5, the African Group 'underscored the need for adaptation and massively scaled-up and predictable funding' (ENB-398) but also 'noted that the necessary scale of funding has never been dealt with before under a UN convention and wondered about institutional arrangements' (ENB-400). This suggests that developing countries' expectations had been shaped by past experience of institutional processes (Duit 2007) and they were aware of the institutional challenges they faced in securing finance commitments that would meet their needs. Developing countries also showed that they perceived finance flows as controlled by developed countries and expected to wait for voluntary offers of funding: at AWG-LCA-5, AOSIS 'called for significant public funding and asked developed countries how much money they would be "putting on the table" in Copenhagen' (ENB-399), and at AWG-LCA-6, AOSIS 'urged a "firm commitment" from developed countries to bridge the gap between available and necessary financing' (ENB-415).

Developing countries were successful in securing quantified financial commitments at COP-15, for US$100bn annually by 2020 and US$30bn per year for 2010-2012. However, the process of building consensus around these commitments was characterised by developed countries volunteering particular sums of finance rather than being shaped by the COP and either internal or external assessments of developing countries' needs. Increasing direct, independent offers of finance reinforced the voluntary paradigm in response to external studies becoming more numerous and detailed. For example, at AWG-

LCA-7, 'Japan highlighted his country's intention to provide more financial and technical assistance than in the past, in accordance with the progress of international negotiations' (ENB-432). While the numerical commitments were significant, they did not alter control over the delivery of funding since 'there was little movement on substantive matters such as the amount of finance that would be available' (ENB-439). At COP-15, 'US Secretary of State Hillary Clinton announced that the US is prepared to work with other countries to mobilize US$100 billion a year by 2020' and Japan announced they would raise climate aid to about US$15 billion by 2012 (ENB-458), as the most powerful developed countries cemented the final agreement by reinforcing that financial flows would still be subject to their willingness to contribute.

5.3.5 Needs assessment in the Paris Agreement

Developing countries primarily focused on the roadmap to achieving the US$100bn annual target after its adoption, but they continued to discuss the adequacy of the target and made reference to finance necessary to meet their needs and to maintain the agreed temperature target (ENB-464). Developed countries continued to announce voluntary funding, rather than acknowledging needs assessments or any particular burden-sharing framework that underpinned or justified these pledges (ENB-460 & 463), demonstrating their continued control over finance actually flowing into the UNFCCC system. Some developing countries sought explicitly to prevent the US$100bn figure becoming a de facto limit to pledged or expected climate finance, which demonstrates a degree of foresight and remains a key challenge for developing countries post-Paris, as they seek to maximise the potential for the entrenched voluntary regime to mobilise adequate resources and raise ambition over time.

In terms of questioning the US$100bn target directly, at AWG-LCA-15 in 2012 (before COP-18), Barbados 'indicated that the US$100 billion per year of long-term finance would be "grossly inadequate" for assisting countries in adaptation' (ENB-544). At ADP-2 (before COP-19), the African Group 'expressed concern over the lack of adequate mitigation finance' (ENB-568). At ADP-2-5 (before COP-20), the African Group 'called for a mid-term target of US$60-80 billion per year by 2016 and a pathway for moving to US$600 billion per year by 2030', and AILAC identified 'the need for a mid-term finance target of US$70 billion for 2016' (ENB-598). Tellingly, the African Group said at COP-20 that 'long-term climate finance should not be confined to US$100 billion annually' (ENB-611), illustrating how this figure had become institutionalised without a direct link to evolving developing country needs. At ADP-2-10 (before COP-21), the G77/China 'highlighted the need for: a floor of US$100 billion by 2020 with a clear burden-sharing formula; and recognition of the principles of the Convention' (ENB-644).

Developing countries also continued to make reference to their needs. At COP-19 in 2013, China, AOSIS and South Africa expressed disappointment with 'the lack of ambition, proposing that the COP decision urge Annex I parties to increase their level of ambition in line with science and CBDR' (ENB-589) and at ADP-2-5 (before COP-20), the African Group 'stressed the need for adaptation needs assessment and assessment of support, including clarifying the type and sources of support. Tuvalu suggested incorporating a review mechanism to assess if finance matches adaptation needs' (ENB-598). At COP-20 in 2014, 'Egypt said climate finance should be related to the global temperature goal, and called for identification of needs, priorities and necessary enabling environments' (ENB-616). At ADP-2-8 (before COP-21), 'the African Group called for a clear link between a quantitative financial goal and temperature goal' and 'the G-77/China called for developed countries and Annex II parties to provide finance in line with developing country needs, with references to Convention Article 4 and CBDR' (ENB-622). At ADP-2-9 (before COP-21), AOSIS 'called for a goal for climate finance that will keep temperature increase below 1.5°C. Many developing countries called for adequate and predictable support' (ENB-637). Developing countries had little to lean on within the institutional structure, though, so these references remained objections to the prevailing institutional prioritisation of developed countries' willingness to contribute as the deciding factor in financing levels.

In contrast, developed countries could negotiate from a position of retaining the existing lack of a clear needs assessment process: at COP-20 the US 'suggested deleting reference to mobilization of climate finance "as a means to stay below the long-term temperature limit," and, opposed by the African Group, to "adequate and predictable" funding for adaptation', while 'Australia and New Zealand did not support linkages between mitigation ambition, adaptation needs, the global temperature goal and finance' (ENB-611). Provisions advocated by developing countries were whittled away during negotiations and the final Paris Agreement commits developed countries only to a 'continuation of their existing obligations under the Convention' (Article, 9, paragraph 1) (Obergassel et al. 2015, pp. 257–258), indicating a path of least resistance to reiterate the existing voluntary arrangements rather than alter the finance process to include needs assessment more robustly. Additional clauses state that 'Parties recognize the importance of support for and international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties' (Article 7, paragraph 6), and that the global stocktake, where commitments are reviewed and expected to be enhanced, shall include reviewing 'the adequacy and effectiveness of adaptation and support provided for adaptation' (Article 7, paragraph 14). However, once again there are no detailed institutional

rules to give developing countries greater influence over determining adequacy or linking needs to clear requirements for what developed countries must provide.

Decision 1/CP.21 (adopting of the Paris Agreement) confirmed that 'developed countries intend to continue their existing collective mobilization goal' (the US$100bn target) until 2025 and stipulating that by then the COP 'shall set a new collective quantified goal from a floor of USD 100 billion per year, taking into account the needs and priorities of developing countries' (paragraph 53). The decision also 'recognizes the importance of adequate and predictable financial resources' (paragraph 54), but again does not give any procedural details. Prior to 2020, when the Agreement comes into force, the COP 'resolves to enhance the provision of urgent and adequate finance' and 'strongly urges developed country Parties to scale up their level of financial support, with a concrete road map to achieve the goal of jointly providing USD 100 billion annually by 2020 for mitigation and adaptation while significantly increasing adaptation finance from current levels' (paragraph 114). This this relatively vague language where developed countries "intend" and are "urged" to act ultimately reiterated the US$100bn as a general target and reinforced the existing voluntary paradigm, giving little hope that funding will be increased in line with the needs of developing countries (Sharma 2017), particularly as adaptation costs continue to spiral and the significant gap widens between funding provision and needs (UNEP 2015).

5.4 Clear, assessed and defined financial commitments

Developing countries have faced an ongoing challenge within the policy process to convert expressions of support by developed countries for contributing climate finance to developing countries into firm commitments and quantified finance policy. This challenge embodies the embedded nature of the voluntary regime, with donor willingness underpinning UNFCCC climate finance policy rather than quantified needs assessments and legally binding or enforced commitments. The previous section showed that early climate finance policy was dominated by insubstantial needs assessment policy and reliance on the GEF and its replenishment process, and during this period developing countries combined their efforts on securing funding for adaptation with a push to move away from the GEF and introduce a system that would make funding mandatory rather than voluntary. While this push was unsuccessful, the next key drive for assessed funding came when the many rounds of negotiations leading up to COP-15 in Copenhagen in 2009 opened up a broad remit of policy making (first under the Convention Dialogue and then the AWG-LCA). In this negotiating space, developing countries consistently increased justice-based references to assessing developed countries' contributions according to specific GDP percentages, building on the ability-to-pay principle, or burden sharing arrangements based

on the polluter pays principle and historical responsibility for emissions. This section will examine the impact of these increasing demands for assessed contributions and an institutional burden-sharing procedure, which challenged the voluntary paradigm by 'calling for a paradigm shift, in which financing for climate change is seen as reparation or compensation for loss and damage, based on historical responsibility and therefore obligatory, and not discretionary, in the same vein as ODA' (ENB-439).

5.4.1 Efforts to secure mandatory funding as part of the new Marrakesh funds

Yamin and Depledge (2004, p. 279) argue that negotiations at COPs 5-7 (1999-2001) were influenced by developing countries' initial years of experience of what could and could not be funded through the GEF, whose procedures, while influenced by COP decisions, were set by the donor-controlled GEF Council. This generated support for the creation of new funds at COP-7 that would give greater attention and priority to adaptation and broader development efforts, for which developing countries had long sought greater funding, as they continued attempts to subvert the intentions of the initial institutional design (Thelen 1999). Proposals for new funds from the Umbrella Group and the EU formed the basis of discussions at COP-6, but developed countries showed little inclination to move beyond the centrality of the GEF and its replenishment process towards any kind of mandatory funding framework. The perspective of developing countries regarding both justice and the strength of the existing institutional structure was made clear by the response from the G77/China, which stressed that '"the ball is in the court of developed countries," saying they have the economic resources and have caused the problem, and therefore it is their responsibility to resolve this' (ENB-162).

COP-6 ended without an overall agreement and was continued at a supplementary conference (COP-6.bis). Negotiations over the proposed funds included 'whether contributions to funds should be voluntary or mandatory and who should contribute' (ENB-171) and demonstrated clear division between developed and developing countries:

> *Most Annex I Parties, opposed by developing countries, supported voluntary rather than mandatory levels of contribution, and opposed any compliance consequences/penalties. One developed country added that levels of contributions should be set for countries collectively, not individually, and did not accept the formula for burden sharing, which calculates Annex I Parties' financial contributions based on their share of carbon dioxide emissions in 1990. Annex I Parties also preferred building on existing institutions, with a focus on the GEF.* (ENB-169)

Ultimately, 'developing countries compromised by agreeing not to insist on mandatory funding' (ENB-176), thereby withdrawing their bid to gather a coalition of sufficient strength to secure institutional change on this matter (Hall 2016). The text of decision 7/CP.7, which launches the LDC Fund and SCCF, does recognise the need for new and additional funding beyond that already given to the GEF, but specifies only that Annex I Parties 'should provide funding for developing country Parties' through the new funds as well as existing GEF and bilateral/multilateral channels (paragraph 1(c)). Annex II Parties 'shall be *invited* to contribute' to the SCCF (emphasis added).[2]

The Adaptation Fund uses a novel levy on CDM projects as a source of funding, and decision 11/CP.7 states only that 'Parties included in Annex I that intend to ratify the Kyoto Protocol are *invited* to provide funding' additional to the levy (paragraph 3, emphasis added). While the CDM levy is a non-discretionary source of funding, Khan and Roberts (2013, p. 175) argue that the levy actually extracts money that technically belongs to the nations hosting the projects, which are mostly larger developing countries such as China, India and Brazil. These countries view the levy as a solidarity payment with LDCs and other developing countries, meaning the levy does not represent developed countries having agreed to a mechanism for mandatory funding contributions. As ENB-176 reported, 'from a developing country perspective, the texts mirror the compromise' that they made over the LDC Fund and SCCF, 'under which they lost out on their previous insistence on mandatory funding levels or any setting of funding levels.' As a result, although developing countries tried to generate sufficient momentum within negotiations to break out of the voluntary paradigm and secure mandatory funding streams, the Marrakesh funds added additional layers of policy to reinforce the prevalence of donor prerogative within the financial mechanism and strengthen the voluntary funding policy paradigm; 'as one developing country delegate expressed it "they have shown us the blank checks [sic], now the question is will they actually enter any figures"' (ENB-176).

5.4.2 Attempts to reinforce justice-based finance before COP-15

The early stages of negotiations leading up to COP-15 saw developing countries make renewed efforts to bring developed countries' historical responsibility into the policy process. At the fourth Convention Dialogue in 2007 (before COP-13), AOSIS 'proposed a new fund based on the "polluter pays principle" to link emissions to Annex I countries funding commitments' (ENB-336), and at AWG-LCA-2 in 2008 (before COP-14), AOSIS said that the aim of their financing proposals was to 'implement Convention articles including 4.3 and

[2] There is no equivalent clause concerning the LDC Fund in decision 7/CP.7.

4.4, in line with the polluter pays principle' (ENB-337). At AWG-LCA-3, 'Brazil noted that the "polluter pays" principle should be applied in conjunction with historical responsibility' (ENB-382), at AWG-LCA-4/COP-14, 'Bhutan said polluters should pay for adaptation financing' (ENB-394) and at AWG-LCA-5, 'Bolivia stressed that developed countries should pay their climatic debt' (ENB-407). At AWG-LCA-7, 'Uganda, for the LDCs, highlighted that developed countries' responsibility under international law to redress damage caused by climate change formed the basis for public funding from those countries' (ENB-432) and 'Venezuela said that developed countries were using "green excuses" to get out of their historical responsibilities' (ENB-434). 'India stressed that ODA financing is discretionary while climate change finance should be assessed based on clear acknowledgement of historical responsibility' (ENB-438).

Developing countries also built on ethical obligations by demanding that finance commitments should be specified as a defined proportion of GDP, representing overall ability to pay. At the fourth Convention Dialogue in 2007, Algeria 'proposed a fund with contributions from developed countries of 0.1-0.5% of their GDP' and 'Egypt proposed that the Secretariat look into a mechanism for assessed contributions' (both ENB-337). In a 2008 submission to the AWG-LCA, China proposed that 'developed countries shall annually provide financial support of no less than 0.5% of their total GDP to support actions by developing countries to address climate change in developing countries' (FCCC/AWGLCA/2008/MISC.1). At AWG-LCA-2, India suggested a new fund 'capitalised by developed countries at a level of 0.3% to 1% of GDP' and China reiterated their earlier 0.5% of GDP proposal (Khoor 2008, reproduced in Müller 2008a, pp.32–33). At AWG-LCA-3, Mexico introduced their proposal for a fund (later realised as the GCF) based on 'contributions from all parties based on greenhouse gas emissions, population and GDP' (ENB-381).

At AWG-LCA-5, 'Brazil supported assessed contributions' (ENB-399), while 'the G-77/China, supported by AOSIS and others, proposed assessed contributions' and 'the LDCs and others proposed using GDP and cumulative emissions to assess developed countries' contributions' (ENB-400), and 'Mexico underscored using GDP, population and emissions as indicators to assess contributions, and reminded that financing for the UN is based on assessed contributions' (ENB-403). At AWG-LCA-6, 'Colombia preferred the 2% of GNP assessed contribution option' (ENB-415), and at informal talks between AWG-LCA-6 and 7, 'South Africa stated that the African Group would not accept an agreement on finance without a financial commitment of one percent of global GDP', China stressed that finance should 'constitute at least 0.5-1% of developed countries' GDP' (ENB-424) and 'Bangladesh called for sustained financial resources over and above 1.5% of developed country GDP'

(ENB-427). At AWG-LCA-7, 'Bangladesh, for LDCs 'called for funding equal to 1.5% of developed countries' GDP' (ENB-431). With this wide range of developing countries demonstrating such consistent demands for a change to the existing basis for climate finance, it is clear that a coalition of actors was seeking to alter institutional structures that gave control over finance flows to developed countries (Hall 2016).

Over the rounds of negotiation leading up to COP-15, a few developed countries demonstrated some support for these demands and recognition of a moral basis to North-South flows of climate finance. For example, at AWG-LCA-3, 'Switzerland noted its submission on a funding scheme based on common but differentiated responsibilities, and the "polluter pays" principle' (ENB-381). At AWG-LCA-4/COP-14, on the architecture to deliver finance, the Netherlands 'said countries should pay according to capacity and contribution to global emissions' (ENB-394) and Canada 'stressed the principles of equity, common but differentiated responsibilities, precaution and "polluter pays"' (ENB-399). At the informal meeting between AWG-LCA-6 and 7, 'the EU acknowledged the need for assessed contributions' (ENB-427). These hints of acknowledgment did not translate into alignment between Northern and Southern perspectives, though: 'Japan, Australia and the US emphasized that assessed contributions as a key source of finance was not an area of convergence' (ENB-427). As COP-15 approached, developing countries had made little progress in securing either a historical responsibility or percentage of GDP basis for climate finance, leading one developing country delegate to say in frustration, 'we are not begging for aid, we are demanding fulfilment of a legal commitment' (ENB-439). This illustrates the continuing legacy of the development assistance sector and influence of the voluntary paradigm that still contributed to North-South bargaining on the basis of donor-recipient identities and relationships 15 years after the UNFCCC commenced.

At COP-15 in 2009, the EU proposed a US$100bn per year commitment, which may appear to be a significant concession by developed countries but, just as with developed countries' response to calls for needs-based commitments discussed in the previous section, the US$100bn proposal was a reinforcement of the voluntary paradigm rather than acceptance of demands to introduce defined finance calculations based on GDP percentages or a specific ethical principle, since developed countries chose the figures and no governance arrangements for achieving the target were included (Bodansky 2010, p. 237). As a result of deep divisions and procedural mishandling, the final Copenhagen Accord was limited in scope compared to usual COP agreements but it did include pledges to mobilise US$100bn by 2020 and short-term financing of US$10bn a year between 2010 and 2012 (so-called fast-start financing). However, 'the basis for operationalizing the financing provisions

in the text is uncertain, which many have pointed out is very unfortunate and detrimental to those developing countries that really need it' (ENB-459).

Although developing countries 'reiterated the flaws in the [proposal] document, including lack of effective commitments' (ENB-459) and 'the scale of contributions' continued to cause disagreement (ENB-456), developed countries were able to lean on the voluntary paradigm to increase their negotiating weight by pressurising developing countries with overt threats to withhold funding (Carter et al. 2011, Vidal 2011). Here the institutional structure underpinning the voluntary paradigm gave developed countries a power advantage that enhanced their political ability to resist the coalition of developing countries that sought to introduce a system of assessed contributions. As a result, although the headline figures entailed a significantly greater commitment than had ever been offered through the GEF replenishment mechanism, without significant operational detail or framework, developed countries had retained their control over finance flows and avoided a system based on GDP percentages or another ethically-based assessment.

5.4.3 Reactions to the US$100bn commitment in the Copenhagen Accord

Although the headline figures agreed at Copenhagen were a notable outcome of climate finance policy making, the Copenhagen Accord was deemed by many to be a political failure. The subject of vigorous debate until the final moments of the COP and, with a small group of countries refusing to accept it, the Accord was only "noted" by the COP rather than adopted. As a result, COP-16 the following year in Cancún was an important opportunity to reinforce what had been agreed in Copenhagen and operationalise policies such as the US$100bn commitment. Despite momentum from Copenhagen, the negotiations leading to COP-16 suggest that developed countries' pledges had successfully reinforced the existing paradigms and policy paths that underpinned the voluntary finance regime and donor control over amounts and delivery of finance. Developing countries continued their vocal challenge of these structures, particularly in terms of assessed levels of contribution, but policy output from COP-16 offered little in response to what developing countries had long argued for.

Developing countries continued to call for contributions related to GDP percentages, most notably at AWG-LCA-10: 'Timor-Leste suggested that this should be in the form of a percentage of developed countries' Gross Domestic Product' (ENB-463), 'Nicaragua called for commitment of 6% of developed countries' GDP', the African Group said scaled up funding should amount 'to 1.5% of their GDP', 'Bolivia stressed that developed country commitments based on their GDP offer the necessary predictability of funding', the LDCs 'stated that funding should...comprise 1.5% of GDP from developed countries', COMIFAC

stated that funding should amount 'to 1.5% of their GDP', the G-77/China 'proposed assessed contributions starting at 1.5 % of developed countries' Gross National Income as the primary basis of funding', and 'China called for assessed contributions by developed countries, expressed as a percentage of annual GDP' (all ENB-464). These demands illustrate that the challenge to the voluntary paradigm continued from a strong coalition covering almost the full spectrum of developing country negotiating blocs, but developed countries remained unwilling to entertain the prospect of assessed contributions: at AWG-LCA-12, 'on the scale of long-term financing, many parties highlighted the need for new, additional, adequate and predictable finance, as well as assessed contributions derived mainly from public sources. Other parties cautioned against proposing "simplistic percentage figures"' (ENB-484).

Despite the headline figures agreed at COP-15, at AWG-LCA-10, AOSIS 'complained that 'six months after COP 15, financing for adaptation is yet to materialize' (ENB-462), and there were complaints that 'parties had not really moved on from their "entrenched pre-Copenhagen positions." The assessment of a veteran developed country finance expert was that parties were "pretending as though the US$100 billion pledged in Copenhagen never happened"' (ENB-464). This North-South division continued through negotiations leading up to COP-16, where 'developing countries supported the option that developed countries should commit 1.5% of their GDP to support developing countries, rather than text referring to a US$100 billion commitment annually by 2020' (ENB-495), evidence of a final push to directly challenge institutionalisation of the US$100bn target and its reinforcement of the voluntary paradigm and developed countries' advantage. Following the established pattern, 'many developed countries expressed reservations on text indicating that the main or major source of funding will be assessed or indicative contributions from Annex II parties to the Convention' (ENB-495), confirming developed countries' resistance to the challenge. Policy agreed in Cancún retained reference to mobilising the goal of US$100bn annually, adding an important policy layer strengthening this target, and included no assessed contributions or burden sharing framework, nor a compliance mechanism to ensure fulfilment of pledges would be forthcoming.

5.4.4 The impact of the US$100bn target on the Paris Agreement

Having overcome the challenge to institutional structures at Copenhagen and Cancún, the Paris Agreement in 2015 was the next significant milestone in UNFCCC negotiations and policy output. The US$100bn annual climate finance target has been controversial within and beyond the climate governance regime since its introduction at the Copenhagen COP (Sharma 2017), but evidence suggests that the level of US$100bn was becoming a clear policy

path and potentially established as part of the institutional structure at the heart of finance negotiations, leading developing countries to reduce their calls for contributions related to GDP or the "polluter pays" principle. Instead, without a framework to determine how much each country should contribute to ensure the US$100bn target is reached, and a notable absence of planning or commitments for the 2012-2020 period, developing countries pushed for a clear roadmap towards the US$100bn target in the negotiation rounds leading up to the Paris COP in 2015.

For example, at AWG-LCA-14 (before COP-17), the ambiguity of finance provisions in the Copenhagen Accord led developing countries to raise 'questions about the possibility of a "financing gap," expressing fears that the Green Climate Fund will just be an "empty shell"' (ENB-521). At COP-17, 'Nicaragua said there was no concrete roadmap for mobilizing [sic] the US$100 billon pledged by 2020' (ENB-528) and China said the negotiating text 'should specify how the developed countries' commitment to mobilize US$100 billion included in the Cancun Agreements will be achieved' (ENB-534). In the first ADP negotiations in 2012 (which superseded the AWG-LCA leading up to Paris), 'Brazil said the uncertainty related to the 2012-2020 financing gap must be overcome' and China 'proposed including in the workplan a specific process or mechanism for scaling-up intensified support to developing countries' (ENB-554). At COP-19, various developing countries, including the African Group, India, Mali, China, the LMDCs, the Philippines and Venezuela, 'called for a pathway for the delivery of the US$100 billion target' (ENB-591), at ADP-2-5 'the Philippines, with India, called for clarity of support to build trust among parties' (ENB-595). At COP-20, 'China said it was "imperative" to define in Lima a roadmap to mobilize US$100 billion per year by 2020' and Grenada called for 'milestones to reach the US$100 billion goal' (both ENB-616). At COP-21, the BASIC group stressed that developed countries must 'define a clear roadmap to achieving the US$100 billion goal' in the pre-2020 period (ENB-654), 'the Philippines called for ensuring pre- and post-2020 adaptation finance through quantitative goals' (ENB-661), and 'one developing country party requested "a concrete roadmap" be inserted for achieving the US$100 billion goal' (ENB-663).

Consistent with their previous behaviour, developed countries, particularly the US, were resistant to greater clarity on exactly what finance they would provide and a roadmap to the US$100bn target, as they sought to preserve the institutional structure that gave them control over delivery. At the final session of the AWG-LCA in 2013 (before COP-19), 'on continuity of climate financing during the period 2013-2020, some developing countries asked for elaboration of reassurances by developed countries. The US distinguished between providing reassurance about continuity of finance after 2012 and having a numerical target, noting that his country was scaling-up financing' (ENB-554). At COP-19, some developed

countries 'rejected quantified pathways' (ENB-587). At ADP-2-6 (before COP-20) 'China, Iran, the LDCs and Ecuador called for quantitative commitments' on finance (ENB-602), but 'Norway and New Zealand opposed legally-binding numerical financial commitments' (ENB-601) and 'Switzerland, Canada, the US and Australia opposed a short-term quantitative goal in the post-2020 period' (ENB-602). At COP-20, 'Norway, the EU and Japan opposed an ex ante process to commit to quantified support', 'with the EU signaling [sic] this as "a red line"' (ENB-611). Also at COP-20, 'Japan, with Australia, New Zealand and Canada, opposed including specific quantitative financial commitments' (ENB-617) and the Umbrella Group, the EU, and Switzerland 'rejected "unacceptable bifurcated proposals [by the G77] for quantified commitments for public finance"' (Dimitrov 2016, p. 5).

As with previous periods of negotiation, developed countries also emphasised the finance that they had delivered, thereby portraying the "success" of the voluntary system. At COP-18 in 2012, the Umbrella Group 'emphasized that the fast-start finance commitment has been collectively surpassed' (ENB-558). At COP-19, some developed countries emphasised 'work undertaken towards achieving the 2020 goal' (ENB-587) and 'when 'China emphasized the importance of agreeing on a roadmap for achieving the US$100 billion target', 'the EU drew attention to fast-start finance efforts' (ENB-591). At COP-20, when the G77/China called for clarity on financial contributions, the US and the EU 'highlighted the GCF's initial capitalization of US$9.7 billion prior to Lima' (ENB-612). Some developed countries did seem to acknowledge the need to increase levels of finance, such as at COP-18 when the EIG 'highlighted several achievements on finance, noting that further work is required, including scaling up finance to agreed levels by 2020' (ENB-557) and the EU said it 'will continue to provide support after 2012 and will work to scale up finance towards 2020' (ENB-558), but this did not lead to acceptance of a quantified roadmap.

Assurances and pledges of particular sums of finance were consistent with the existing institutional structures that gave developed countries control over how and when they would provide finance; the GCF was still dependent on donor willingness to contribute (de Sépibus 2015, p. 311). As a result, despite the US$100bn target, statements of support did little to reassure developing countries or alter their expectations of what developed countries would do or agree to. For example, Colombia said that US statements about scaling-up 'did not provide adequate reassurance that the US$100 billion target would be met' (ENB-554), and ENB-594 reports that at COP-19 in Warsaw,

> *'financial issues proved thorny, ultimately tied to diminishing trust among parties in the climate process. Pledges made in Warsaw, including US$40 million by the Republic of Korea to the Green Climate Fund (GCF) and US$72.5 million by seven European governments to the Adaptation Fund, were insufficient to build confidence among developing countries that*

the 2009 promise of US$100 billion per year by 2020 would be realized... With the GCF in large part still an "empty shell," many developing countries worried that pledges would not materialize into actual deposits to realize the 2020 goal... In Warsaw, with the operationalization of the GCF, several developed countries expressed willingness to pledge, yet the pledges did not necessarily raise developing countries' confidence that the funds will actually materialize.

At COP-21, in a repeat of events at COP-15, the voluntary paradigm contributed to developed countries' political power when 'several Northern countries opposed making financial commitments, and even suggested reversing previous pledges of climate finance' as they sought to secure developing countries' agreement (Dimitrov 2016, p. 4). The Paris Agreement is weak on finance and 'does not include a collective, quantified goal for adaptation finance, as had been demanded by developing countries' (Obergassel et al. 2015, p. 254). The Agreement does state that 'continuous and enhanced international support shall be provided to developing country Parties' (Article 7, paragraph 13) but, 'as many lamented, the US$100 billion finance mobilization goal, set to be reached by developed countries in 2020, is "essentially extended in the decision through 2025"' (ENB-663), again showing the strength of developed countries' control over delivery of finance. As well as this extension, decision 1/CP.21 on implementation of the Paris Agreement stipulates that by 2025 the COP 'shall set a new collective quantified goal from a floor of USD 100 billion per year' (paragraph 53) and paragraph 114 'strongly urges developed country Parties to scale up their level of financial support, with a concrete road map to achieve the goal of jointly providing USD 100 billion annually by 2020'. However, once again the Agreement does not include any mechanism for ensuring individual developed countries set out how and when their finance commitments will be delivered.

5.5 Compliance and measurable, reportable and verifiable finance

As well as calling for assessed and needs-based contributions, developing countries have argued consistently that developed countries should fulfil the obligations they have made in the Convention and subsequent policy. For example, at COP-6 in 2000, 'the Sudan noted reluctance by developed country Parties to implement their commitments in relation to the provision of finance' (ENB-160), at COP-8 in 2002 'the G-77/China expressed disappointment at the low level of financial resources provided by Annex I Parties, stressing that action so far has been symbolic' (ENB-202), at COP-9 'Micronesia called on developed countries to meet their UNFCCC commitments relating to financing adaptation projects in SIDS' (ENB-229), and at COP-10 Qatar said the finance needs of developing countries

'should be met through full implementation of commitments by Annex I Parties' (ENB-258). These demands reflect the way in which institutional design and the established voluntary paradigm had allowed developed countries to control the finance that they pledged and the speed at which they delivered the money, with the donor-controlled GEF replenishment process a key part of this before other UNFCCC funds were created. Experience of this finance system led developing countries (and other observers) to expect that developed countries would not provide the levels of finance they had committed to or would not provide it within the pledged timescale (Bulkeley and Newell 2015, p. 49, Flannery 2015, p. 86).

In response to their distrust of developed countries, developing countries called for institutional mechanisms to increase transparency and make sure that commitments were being fulfilled, in particular rules to ensure commitments are "monitorable, reportable and verifiable" (MRV). This section will examine how these calls originated in relation to the established voluntary basis for climate finance and how policy development concerning compliance and MRV reinforced or disrupted the established institutional structure giving donor countries control over finance flows. There was little in the policy output during this period that referred to any kind of mechanism to review finance delivery in relation to commitments or oblige compliance. As a result, the analysis in this section commences in the context of the broad negotiating track leading to the milestone COP-15 in Copenhagen in 2009, which led to the defined US$100bn headline finance commitments that first gave a focal point to transparency and compliance. The section continues by analysing the subsequent emergence of the bottom-up governance regime prior to COP-21 in Paris, when developed countries sought to broaden the number of countries expected to provide climate finance while continuing to resist compliance measures.

5.5.1 Efforts to strengthen finance commitments prior to COP-15

The expansive remit of the AWG-LCA negotiations that led to the Copenhagen Accord and Cancún Agreements, and the high expectations of a comprehensive agreement at COP-15 in Copenhagen in 2009, meant that policy paths were potentially more vulnerable than in previous rounds of negotiation, presenting developing countries with an opportunity to re-shape the institutional structures that underpinned the voluntary, donor-led UNFCCC finance regime. In the negotiations leading to COP-15, developing countries targeted prominently the fulfilment of developed countries' obligations through measuring, reporting and verifying financial flows. The first stage of this came when the Bali Action Plan of 2007 introduced the phrase 'measurable, reportable and verifiable' for the first time, after considerable debate about whether it should apply to the finance, technology transfer and capacity building provided by developed countries in addition to developing countries'

mitigation acts (Khan and Müller 2011, p. 18). That developing countries were willing to agree to MRV of their mitigation in return for the same transparency of developed countries' support provision illustrates how important the ability to ensure fulfilment of developed countries' commitments was (Müller 2008b).

Negotiations on forming the agreement intended for COP-15 began at AWG-LCA-1 in 2008, where 'China said developed countries must fulfill [sic] their legal obligations under the Convention to provide funding to developing countries' (ENB-361), and another 'developing country delegate said in frustration, "we are not begging for aid, we are demanding fulfillment [sic] of a legal commitment"' (ENB-369). At AWG-LCA-2, 'the G-77/China said funding should come from implementation of Annex I countries' commitments' (ENB-370) and at AWG-LCA-6 in 2009 (before COP-15), 'Venezuela called for a special emphasis on obligations that have not been honored [sic], including those related to adaptation, finance and technology transfer' (ENB-413), and Indonesia 'reminded Annex I parties of their commitment under the Convention to meet the full- and full incremental-costs of developing countries' (ENB-415). At AWG-LCA-7, 'the G-77/China stressed that the discussion should focus on how to enhance the Convention's implementation through meeting developed countries' commitments to provide new and additional financial resources to enable mitigation and adaptation actions' (ENB-432), and also said that 'developed countries were denying their historical responsibility and their corresponding commitment to provide financial resources' (ENB-437).

At AWG-LCA-4/COP-14, South Africa said MRV must be applied to 'implementation of financing...commitments by developed countries' (ENB-391). At AWG-LCA-5, 'India, with Saudi Arabia, cautioned against revising the principles of the Convention' and called for 'the fulfilment of commitments related to finance' (ENB-398). At informal talks between AWG-LCA-6 and 7, 'the G-77/China and other developing countries emphasized the importance of MRV to successful mobilization of financial resources' (ENB-424) and with Egypt, Argentina, Sri Lanka and the African Group, Venezuela 'said funding should...be subject to MRV' (ENB-415). Calls for MRV naturally led to calls for institutional rules that could ensure developed countries complied with their commitments, which can be interpreted as institutional rules that would give the COP, and thereby developing countries, greater influence over finance flows. For example, at AWG-LCA-5 'Tanzania called for compliance mechanisms for finance' (ENB-399), and at AWG-LCA-7 the G-77/China, supported by the LDCs and the African Group, 'supported a compliance mechanism to ensure fulfilment of developed countries' funding commitments' (ENB-431). The G-77/China, 'with Bangladesh, highlighted the need for a compliance mechanism for monitoring how developed countries implement their financial commitments' and the LDCs

'proposed a two-stage compliance regime, a "naming and shaming" mechanism listing defaulters as an initial step and then the imposition of penalties as a further step' (ENB-436).

Developing countries also stressed that voluntary funding was not providing sufficient resources, such as at AWG-LCA-5 when 'Indonesia highlighted insufficiency of voluntary funding' (ENB-405) and AWG-LCA-6 when Mexico 'registered doubt on whether voluntary agreements would work' (ENB-416). As a means to overcome this insufficiency of funding, developing countries also called for legally-binding commitments; for example, Panama, with Bangladesh, Cambodia and others at AWG-LCA-6 'said that the provision of financial support by Annex I parties should be legally binding' (ENB-414), and at AWG-LCA-7, AOSIS 'said that commitments on finance should be legally binding' (ENB-429). In terms of institutional structures, this lack of trust reflects the way that the voluntary paradigm has shaped Parties' expectations of each other; developed countries expect that they can control the rate at which they contribute finance, and developing countries expect that developed countries will capitalise consistently on the advantages they gain from established institutional rule structures by controlling how and when they "meet" their commitments.

The Copenhagen Accord does state that delivery of 'financing by developed countries will be measured, reported and verified in accordance with existing and any further guidelines adopted by the Conference of the Parties, and will ensure that accounting of such targets and finance is rigorous, robust and transparent' (paragraph 4). While no framework was included to establish how this MRV would be carried out, the Cancún Agreements the following year added policy detail to the Copenhagen Accord by deciding, 'building on existing reporting and review guidelines, processes and experiences, to enhance reporting in the national communications of developed countries on the provision of financial support to developing country Parties' (decision 1/CP.16, paragraph 40). This included 'development of common reporting formats and methodology for finance, in order to ensure that information provided is complete, comparable, transparent and accurate' (paragraph 41) and a work programme to develop relevant guidelines (paragraph 46). While these initial policies showed some promise of greater climate finance transparency within the UNFCCC (Gupta and van Asselt 2019, p. 24), the Cancún Agreements made no reference to penalties or compliance, which reflects the power imbalance inherent in the institutional arrangements and shows that this new layer of policy did not significantly alter the voluntary paradigm and donor countries' control over finance flows.

5.5.2 Seeking fulfilment of the US$100 billion commitment

After the US$100bn target had become established, developing countries' continued to show their well-established expectations within the institutional structure that developed countries will not fulfil the voluntary pledges they make. This was encapsulated by India noting at COP-18 in 2012 'that the record of Annex I countries leaves "no reason for optimism" on their willingness to voluntarily scale up contributions to the Adaptation Fund' (ENB-559). Similarly, at ADP-2 (before COP-19), 'the Philippines called for urgent implementation of developed country parties' obligations under the Convention; lamenting the lack of common understanding on finance twenty years after the Convention was negotiated', and China 'underscored the need for clarity on how much financial support developed countries will be providing to developing countries' (both ENB-568), again illustrating how developing countries understood developed countries to be in control finance flows. Developing countries showed clear frustration with the restrictions of the voluntary paradigm, such as at COP-19: 'developing countries stressed their expectations for tangible deliverables. A developed country suggested no big, new finance commitments would be forthcoming, calling Warsaw an "implementation COP," prompting a developing country party to ask what there would be to implement, "empty funds?"' (ENB-586). Frustrations with the voluntary system bred distrust between the North and the South within negotiations: also at COP-19, 'developing countries complained of "broken promises" and made desperate calls for implementing agreed commitments on finance, while mutual accusations of backtracking were thrown around' (ENB-594).

In the context of these frustrations and North-South distrust, developing countries continued their demands for MRV and transparency of finance, connected to their calls for a concrete roadmap for delivering finance examined in the previous section. For example, at the informal AWG-LCA session in 2012 before COP-18, 'developing countries expressed concern over the mid-term financing gap, and noted the need to consider MRV of financial support and enhancing transparency of its provision', and 'China, Brazil and South Africa stressed that further work is needed on the issue of MRV of support to developing countries' (both ENB-550). In the first ADP negotiations in 2012 (which superseded the AWG-LCA leading up to COP-21), the Philippines emphasised the need to 'enhance tracking of climate finance performance, including through a transparent mechanism for publication of information' (ENB-554). Developing countries were disappointed with interim policy, such as at COP-18: 'for many, this falls considerably short of the MRV of financial support' they had expected when MRV was introduced in the 2007 Bali Action Plan (ENB-567). At ADP-2 in 2013 (before COP-19), 'the Republic of Korea emphasized the importance of MRV of climate finance. He identified the GCF as the key mechanism for ensuring transparency of

financial support and enhancing trust between developed and developing countries' (ENB-568), again indicating the ongoing distrust under the voluntary paradigm.

At ADP-2-4 (before COP-19), 'China emphasized transparency should ensure implementation of the Convention, stressing the required leadership of developed countries' (ENB-595), which illustrates again how developing countries were still making these requests for MRV and transparency within the structure of the voluntary paradigm and expectations that developed countries will voluntarily "lead" rather than be subject to defined rules. At COP-19 in 2013, numerous developing countries, including the African Group, India, Mali, China, the LMDCs, the Philippines and Venezuela, called for MRV of support (ENB-591) and 'the G-77/China and the African Group called for work on the MRV of support' to be undertaken by the Standing Committee on Finance, a body set up under the UNFCCC (ENB-586). This latter call was reflected in decision 7/CP.13, which 'invites the Standing Committee on Finance to consider ways to increase its work on the measurement, reporting and verification of support' (paragraph 9). Despite such policies, at a UNFCCC workshop on reporting of financial information in 2015 'participants observed discrepancies and a lack of transparency in reporting on climate finance' (ENB-634), indicating ongoing problems with existing MRV systems. Developing countries continued to push for institutional change as the Paris Agreement took shape: at ADP-2-8 in 2015, the LMDCs 'called for a finance registry and for reporting on finance using a common format' and 'China proposed that information on MOI by developed countries be verified through a technical review process, followed by a multilateral assessment process and conclusions with compliance consequences' (ENB-622), and at ADP-2-10 in 2015, India stressed inclusion of 'MRV of support in the agreement' (ENB-641).

Developed countries began to indicate support for more rigorous MRV, which may at first appear to be an acceptance of developing country demands, but must be viewed in the context of developed countries wanting to move away from simplistic North-South differentiation and expand the donor base within UNFCCC climate finance, particularly in terms of large developing countries (Dimitrov 2016, p. 5). With this objective, developed countries had a new self-interested motivation to enhance MRV because new rules would increasingly apply to developing countries too (Gupta and van Asselt 2019, p. 26), just as finance burdens would be shared more broadly. Developed countries' intentions were demonstrated at ADP-2-8 in 2015: 'the EU proposed that all parties individually and collectively mobilize climate finance with developed country leadership. Japan opposed limiting the requirement to provide finance to Annex II parties. Australia suggested replacing reference to countries in annexes with language on "all parties in a position to do so" (ENB-622).

The negotiating text developed at ADP-2-8 reflected this emerging push by developed countries to open up finance: 'a range of views exist on differentiation, from quantitative commitments for Annex II Parties to financial contributions from all "parties in a position to do so"' (ENB-626). At ADP-2-10 in 2015 'several developed countries underlined the need for more countries to mobilize finance' (ENB-641) and 'Japan said MRV of support should be in the agreement' (ENB-642), and at ADP-2-11, 'the Umbrella Group supported a unified and robust transparency system, covering both action and support applicable to all parties' (ENB-647). While developed countries gave 'reassurances with regard to the fulfillment [sic] of existing commitments and continued leadership of developed countries', 'some parties expressed strong reservations, calling for consistency with existing provisions and principles of the Convention' (ENB-659), demonstrating how policy negotiations remained within the voluntary paradigm and coalitions continued to disagree over particular interpretations of original institutional rules (Mahoney and Thelen 2009).

While no new financial commitments were made in the Paris Agreement by developed countries, decision 1/CP.21 stipulates the setting of a new finance goal in 2025, but some countries interpreted this 'as including an expectation that some developing countries should participate in the mobilization' (ENB-663). In terms of transparency, in Article 9 of the Agreement developed countries are instructed to report 'projected levels of public financial resources to be provided to developing country Parties' in their biennial communications, but only when this information is "available" (paragraph 5). Article 13 stipulates that 'developed country Parties shall, and other Parties that provide support should, provide information on financial…support provided to developing country Parties' (paragraph 9), and states that the COP will 'adopt common modalities, procedures and guidelines, as appropriate, for the transparency of action and support' (paragraph 13). Paragraph 115 of Decision 1/CP.21 on adoption of the Paris Agreement states that COP-22 will assess progress implementing decision 1/CP.19 paragraphs 3 and 4 from 2013, which included resolving to "accelerate" the provision of financial support and "urging" developed country Parties to increase financial support to developing countries.

The reporting and stocktake provisions in the Agreement introduce a degree of transparency that is intended to encourage holding developed countries to account, and which the US and EU agreed would serve the same purpose as legally binding provisions (Bodansky 2016), and increases the focus on finance and other forms of support (Gupta and van Asselt 2019, p. 25). This may appear as a success for developing countries' push for transparency and MRV but this new layer of policy must be considered in the context of developed countries' push to open up the donor base so there is reduced North-South

differentiation in finance flows, and alter the institutional structure so the expectation of actors within the policy process becomes that developing countries will increasingly become finance donors (Okereke and Coventry 2016). Revealing that developed countries were ultimately unwilling to give up control over finance flows and could still rely on the advantageous position underpinned by the voluntary paradigm, the only compliance provision in the Agreement consists of a 'committee that shall be expert-based and facilitative in nature and function in a manner that is transparent, non-adversarial and non-punitive' (Article 15, paragraph 2), meaning that sanctions or other punitive measures that would allow the COP to exert control are not available.

5.6 Conclusion

Originating in the political process that created the Convention, and rooted in broader histories and power distributions associated with North-South development assistance, a voluntary paradigm has become an influential feature of the institutional structure shaping the UNFCCC climate finance policy process. Initially a manifestation of political compromise, the rule ambiguities surrounding how developing countries' needs should be determined and how finance requirements for developed countries should be calculated, including links between the two, meant an institutional structure that favoured developed countries emerged from the creation of the UNFCCC. Developed countries were able to exert greater influence over subsequent finance policy because the lack of clarity on policy areas key to determining quantities of climate finance reinforced developed countries' expectations that they should be in control of this process, rather than be subject to policies such as a percentage of GDP or a needs assessment process. Institutional links with the GEF cemented these advantages by bringing the GEF's replenishment process into the institutional structure of UNFCCC finance requirements process. These initial institutional rules institutionalised the voluntary paradigm and this chapter has demonstrated how its influence can be identified throughout the subsequent years of policy making.

Developing countries fought hard to bring in some kind of more systematic determination of what climate finance should be provided, initially arguing for a robust needs assessment process with greater oversight by the COP, with little success. Attempts to secure funding mechanisms dedicated to developing countries' needs, particularly for adaptation, only resulted in the creation of new funds when developing countries withdrew attempts to secure mandatory funding, once again reinforcing developed countries' willingness to provide finance as the dominant structure underpinning policy making. The more expansive policy process leading up to COP-15 in Copenhagen provided an opportunity for developing countries' demands for defined finance targets and normative

claims, such as for assessed contributions, to gain prominence in negotiations. The results of this process, particularly the US$100bn a year by 2020 target, appear to represent success for developing countries in overcoming institutional structures in place since the Convention, but the policy replicated key ambiguities from the Convention and was the product of developed countries' willingness rather than any kind of needs-based calculation or assessment based on normative principles. Furthermore, the voluntary paradigm added weight to developed countries' political threats to withhold funding at crucial moments of negotiation. With the US$100bn target fitting into the existing paradigm of climate finance dependent on developed countries' willingness to contribute, developing countries could only seek a roadmap to indicate how and when the pledges would be fulfilled and more robust MRV of finance flows. The rhetoric of many developed countries emphasised portions of finance they had voluntarily provided, implying the success of UNFCCC policy while simultaneously reinforcing their position as controllers of climate finance amounts and provision.

The voluntary paradigm had been reinforced in several instances of policy making by the time negotiations began leading towards creation of a renewed climate governance regime at COP-21 in Paris. Developing countries sought to highlight the inadequacy of the US$100bn target and voice their frustration with fulfilment of the commitment being dictated by developed countries' willingness. However, with an institutional structure of such strength, developed countries were again able to reinforce their advantage by resisting new needs-based targets or a defined roadmap to delivering their pledged levels of finance, ensuring the Paris Agreement did little to alter the existing policy path based on the voluntary paradigm. Evidence shows that developing countries' trust in delivery of finance had been eroded consistently, indicating the extent of their power deficit within the policy process and the constraints of the institutional structure on their ability to bring about compliance by developed countries, let alone levels of finance that will meet their needs. While some progress towards developing countries' calls for transparency and MRV was made in Paris, this coincided with moves by developed countries to increase expectations that developing countries will be voluntary donors of climate finance, thereby further cementing the voluntary nature of developed countries' own contributions. Overall, the institutionalisation of the voluntary paradigm and the history of its influence on Parties' expectations shows how the institutional structure, rooted in the original institutional design, conferred lasting advantages to developed countries and suggests the voluntary paradigm will remain at the core of how the UNFCCC's institutional structure shapes and constrains the policy process in perpetuity.

6. Additionality and sources of climate finance

6.1 Introduction

Climate finance, in particular for adaptation, is seen by most developing countries as a cost imposed on them by the actions of developed countries, and therefore as a debt to be repaid rather than as a matter of donations or assistance (Müller 2008a). Based on this perspective, developing countries fear that existing flows of development aid will be diverted to meet climate change commitments, that developed countries will claim undue credit for private climate investment flows, and will shift the burden of meeting their obligation to provide climate finance too heavily onto private sources of finance. Despite these concerns, 'due to lack of political agreement, there remains neither a universally agreed definition of climate finance or its constituent objectives...nor consensus on how parties should interpret and apply agreed parameters' (Pickering, Skovgaard, et al. 2015, p. 151). Compounding this disagreement, strategic ambiguity in policy wording allows donor countries flexibility to choose sources that maximise private finance and minimise the pressure that climate finance places on their national budgets (Hall 2017). This ambiguity is significant since additionality and sources are highly technical policy areas that rely on clarity of both rules and any normative basis to influence the behaviour of actors when making and implementing policy, with significant implications for the levels and forms of climate finance that developed countries provide, and thus the achievement of both material interests and just outcomes.

Additionality, or ensuring finance flows are additional to other planned or potential funding, that will take place anyway, in particular official development assistance (ODA), is a longstanding concern throughout the broader climate finance system and within UNFCCC policy (Pickering et al. 2017). Most contributor countries claim that the climate finance they provide is "new and additional" but this is not actually apparent (Brown et al. 2011); the lack of definition has hampered consistent reporting to the UNFCCC on climate finance flows (Buchner, Brown, et al. 2011), with developed countries using many and varied definitions of additionality, or no definition at all (FCCC/SBI/2011/INF.1/Add.2). Without clear guidelines or accountability, and with evidence that ODA is increasingly taking the form of climate finance (Halimanjaya 2015), the general expectation of additionality remains unfulfilled and the subject of ongoing North-South or donor-recipient contestation.

Public finance and the goodwill of developed countries is increasingly seen as inadequate to meet developed countries' commitments (Bowen et al. 2017). The Convention allows for a variety of sources of climate finance and all key UNFCCC policy milestones maintain this flexibility, which 'certainly accounts for the budgetary constraints of many developed countries', particularly in light of the recent financial crisis (Knoke and Duwe 2012, p. 16). In terms of political realities, it appears inescapable that private as well as public sources will be required for climate finance, but developing countries remain understandably suspicious that developed countries will use the flexibility permitted by UNFCCC policy to assign as much of the responsibility for providing finance to the private sector as possible (Stewart et al. 2009). This highlights the normative clash underpinning North-South disagreement over climate finance, with developed countries seeking to downplay the restitutive basis for climate finance and its implications for public finance, while developing countries repeatedly highlight this basis in their negotiating rhetoric (e.g. Moore 2012).

This chapter will first examine how the Convention's rules concerning additionality and sources of finance were created, identifying key ambiguities in policy in order to investigate how they related to particular normative perspectives and how they reflected or generated power advantages for particular actors or coalitions. Gupta (1997, p. 141) reports that after the Convention was finalised, 'gradually, the equity principle expressed in the ability to pay, the proportionality principle, the compensation principle and the additionality principle have got somewhat fudged together in a euphemistic "special responsibility" approach that is based on capabilities'. In this context of an increasingly opaque normative dimension to the policy process and ongoing political contestation over additionality and sources, this chapter will, secondly, scrutinise these two policy areas, in both cases examining how the Convention's outcome affected the way Parties subsequently approached policy development that could retain or clarify normative ambiguities, and the success of efforts by developed and developing countries to achieve their objectives.

6.2 Normative ambiguities in the Convention

As political attention turned to a global governance response to climate change, compensation or aid was included as a key element of an umbrella framework proposed by legal experts in 1989 (Gupta 2014, p. 44). This framing echoes developing countries' understanding of climate change as an economic and development issue, as they focused on their ongoing need to develop and the responsibility of developed nations to take the lead and provide funding that would sustain development paths in the face of the impacts of climate change and burden of necessary response measures (Bodansky 1993). Increasing

engagement of developing countries in the negotiation process shifted climate change from an environmental issue, as originally framed by the North, to one that also included poverty and development.

Although developing countries were not united in their expectations, their involvement at the Noordwijk international climate change conference in 1989 led to its declaration recognising North-South issues, such as the external debt problem, Northern responsibility and the need for financial and technical assistance for the South (Bodansky 1993, p. 467). These moves to include developing country perspectives and priorities as climate change negotiations gathered pace reflected a broader trend in the late 1980s for North-South issues to come to the centre of multilateral negotiations, as in the case, for example, of the Montreal Protocol, where developing countries demanded financial and technical resources as the price of obtaining their participation (Bodansky 1993). The UN General Assembly, subject to less domination by developed countries than most other international governance organisations, produced Resolution 44/228 that started the process leading up to the UNCED, where the Convention was agreed. The resolution linked the environment to development and indicated that the UNCED should 'include ways and means of providing new and additional financial resources' for environmentally sound development projects in developing countries and 'consider ways of effectively monitoring the provision of such new and additional financial resources' (UN 1989, para. 15(j)).

As the G77 sought to increase their participation and ensure the initial multilateral response to climate change would reflect their priorities, developed countries pushed back with resistance from countries such as the US and UK to any extension of development as a result of connecting climate change with poverty and development (Hirst 2014). While developing countries felt that the UN resolution adequately reflected the responsibility of developed countries to provide financial resources, 'the sense of a global moral obligation to address global environmental issues was at a low ebb during 1992 in the United States as well as elsewhere in the North' (Rahman and Roncerel 1994, p. 262), and it rapidly became evident that developed countries 'no longer felt bound by [the UN resolution's] language or intent' (Hyder 1994, p. 206). Developed countries were unwilling to accept a clear definition of or requirements for new and additional resources, citing the restrictive forces of domestic voters and treasuries, and even went as far as accusing developing countries of using the environment as a "club" with which to beat additional resources from Northern economies strapped by recession (Hyder 1994). Developed countries balked at the UNCED Secretariat's estimate that new and additional resources for climate finance should amount to US$125bn per year (Goldemberg 1994, p. 179) and took the view that 'in practical terms the issue is difficult to tackle in an economic climate where there are few new funds available',

remaining strongly resistant to requests for financial resources and discussions over additionality, as well as to the prospect of financial transfers on preferential and concessional terms (Djoghlaf 1994, Kjellen 1994, pp. 164–165).

Developing countries, meanwhile, felt that developed countries had used Resolution 44/228 to draw them into a negotiating process in which developed countries assumed they could use their economic might to ensure that their preferences for institutional design won out over the core interests of developing countries (Hyder 1994). Seeking to ensure that funding additional to ODA and rooted in historical responsibility and moral obligation would form a central pillar of the climate regime, developing countries were unified on the need for adequate, new and additional resources; India sought a pre-negotiation commitment on "new and additional funding" but dropped this after US resistance (Bodansky 1993, p. 484). However, 43 developing countries later joined together to propose that developed countries should 'provide on a grant basis new, adequate and additional financial resources to meet the full incremental costs of developing country Parties' (Dasgupta 1994, pp. 138–139). Developing countries continued to ramp up their rhetoric as the Intergovernmental Negotiating Committee (INC) meetings progressed towards the UNCED, with repeated use of arguments about "guilt", "historical responsibility", "compensation for past deeds" and the "right" of poor countries to 0.7% of the GDP of wealthy countries as development aid (Goldemberg 1994, p. 179).

Development and environmental funding were interconnected throughout the Intergovernmental Negotiating Committee (INC) negotiations that led to UNCED, as early focus on securing new and additional resources on top of the UN's 0.7% of GDP target for ODA was mixed with discussions on increasing GEF contributions and including an environmental element in World Bank funding (Knecht and Cicin-Sain 1993). Developed countries responded to moves to link climate change with poverty and development by firmly placing climate finance within the existing ODA regime, avoiding links between financial commitments and responsibility for causing climate change, and resisting clear commitments to increase net financial flows as implied by the term "new and additional" (Dasgupta 1994). This is consistent with US insistence that its agreement to create a new fund to distribute finance under the Montreal Protocol did not represent a precedent for climate change, which had much more significant funding implications (Collins 1991). The negotiations remained centred on the North giving additional funds to the South, rather than a broader view taking into account other problems like poverty and conflict and engaging with wider economic systems that perpetuate global inequalities that underpin the need for sustainable development (Davidson 1992).

The final Convention text does state that developed country Parties 'shall provide *new and additional* financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1 (Article 4.3, emphasis added). However, this commitment is only for developing countries' reporting obligations, rather than their needs more broadly, and clauses covering resources for broader adaptation and mitigation activities do not stipulate new and additional resources. Yamin and Depledge (2004, p. 276) report that in the case of adaptation funding, the lack of reference to new and additional resources came about because during negotiations, donor states expected that adaptation needs would be met outside of the GEF based on an assumption that such resources would be new and additional. With such assumptions playing into the hands of developed countries by maintaining ambiguity, developing countries largely failed to ensure their additionality concerns were reflected in the UNFCCC's initial institutional rules.

In terms of sources, little is specified in the Convention, but Article 7.2(h) states that the COP shall 'seek to mobilize financial resources in accordance with Article 4, paragraphs 3, 4 and 5, and Article 11', wording which would become significant in subsequent finance policy. Article 11.5 makes clear that 'developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels', thereby offering no clarity on how UNFCCC finance relates to the sources and channels of the broader landscape of development funding. The openness and lack of specificity evident in these various Convention clauses contributed to locking in the power dynamics and North-South relations evident in prior negotiations; the ambiguity left the UNFCCC without institutional rules that provided a clear interpretation or operationalisation of the justice principles that were core to developing countries' perspective and priorities, while developed countries sought to achieve advantageous institutional design by securing policy that ensured their ongoing control over whether and how climate finance was sourced, counted and delivered.

6.3 Climate finance additionality and definitions in the UNFCCC

With the Convention institutionalising the "new and additional" principle, an expectation had been created that additionality would be a consideration shaping how UNFCCC climate finance policy developed. However, the brevity of the principle offered very little in terms of specificity around what exactly should count as climate finance, and how calculations should be undertaken so that additionality would be ensured by developed countries consistently in individual countries' contributions over time and with equivalent procedures

used by different countries. Discussions on additionality began immediately in the initial rounds of negotiation, such as prior to COP-2, when 'Bangladesh said that the GEF definition of "incremental costs" should include "new and additional funding"' (ENB-23) and at COP-2, when the G77/China proposed that to facilitate COP oversight, the GEF should 'indicate the rationale by which the amount described as "new and additional" is regarded as such, vis-à-vis other sources of official development assistance' (ENB-39). Despite continued prominence in climate finance negotiations since this early point, additionality remains an unresolved issue within the UNFCCC finance system today (Schalatek 2018). This has prevented a sense of justice from emerging within climate finance, as developing countries suspect the re-labelling of development assistance and view climate finance as lacking the element of compensation they see as necessary for justice (Stadelmann et al. 2010). However, existing literature has not shown how resistance on the part of developing countries to agreeing a baseline for additionality within the UNFCCC is related to the initial design of the Convention and its influence on power distribution and expectations. Accordingly, this section will examine how the policy process progressed from the ambiguous starting point in the Convention, looking in particular at how negotiations and outcomes at certain points of policy formulation where additionality expectations and rules could have been made clearer or more detailed have been influenced by the way initial rules were created in the Convention and the subsequent development of policy layers.

6.3.1 Additionality in the Clean Development Mechanism

The CDM was created in the Kyoto Protocol, agreed at COP-3 in 1997. The CDM works with credits, known as "certified emissions reductions", which are generated by the creation of emissions reduction projects in developing countries and can be sold to developed countries for offsetting their emissions reductions obligations. Development of the CDM's operating procedures presented an opportunity for coalitions of Northern and Southern states to push for rules that would reflect their priorities as providers and recipients of finance, and the manner in which additionality was addressed directly illustrates its significance as a matter of justice and a threat to developed countries' influence in negotiations. Developing countries wanted to ensure that the finance they would deliver would meet their expectations of additionality, which Côte D'Ivoire stated clearly at COP-4: 'the CDM should not be a substitute for official development assistance or support from the GEF' (ENB-96). At SBI-10 in 2000 (before COP-6) and again at COP-6, the G77/China said that funding for CDM projects should be additional to GEF, ODA and other developed country financial commitments (ENB-107 & 118). At SBI-12 (before COP-6), Colombia said the CDM should 'ensure sufficient additionality' (ENB-133). Subsequently at COP-6, discussion group chairs

‘noted some support on the use of ODA financing in the CDM if this is additional to current ODA levels’, although ‘Saudi Arabia called for clarity on what is meant by financing that is “additional” to “current” ODA’ (ENB-161).

ENB-98 documents a workshop in 1999 before COP-5, which focused on Kyoto Protocol mechanisms. Input from external consultants included reviewing the ability of development financing options ‘to meet the requirement for financial and environmental additionality’. Input also included an explanation that ‘the COP must agree on a level of ODA from which the financial flows related to climate are additional’ and encouragement that ‘existing ODA must not be reduced’. Another consultant encouraged giving finance recipients authority over mixing ODA and climate finance for CDM projects: ‘public authorities in the recipient countries must approve the use of ODA but are often reluctant to do so due to lack of additionality of funds’. This external input was backed up by national statements, with China stating ‘that funding for CDM projects shall be additional to ODA, GEF and other financial commitments of the developed country Parties under the FCCC’, and India stressing that ‘CDM funding must be additional to ODA and the FCCC commitments’.

Despite this input and developing countries’ calls for additionality, negotiations at this stage of the UNFCCC’s evolution remained open, with the lack of a clear definition of additionality contributing to discussions that had no clear trajectory and no unified position among developed countries. At COP-6, the EU acknowledged that ‘CDM funding should not compete with’ GEF and ODA funding, but Japan said that ‘there were no provisions requiring financial additionality and none that preclude the use of ODA as a source of funding’ (ENB-118). At SBI-13 (before COP-6) ‘Japan said any requirements on financial additionality should not result in diversion of ODA’ (ENB-148), but at COP-6, ‘Japan, opposed by China and Indonesia, supported using ODA funding for the CDM’ (ENB-160).

Policy setting out CDM guidelines was agreed at COP-7 in 2001. Decision 17/CP.7 includes a statement in the introduction ‘emphasizing that public funding for clean development mechanism projects from Parties in Annex I is not to result in the diversion of official development assistance and is to be separate from and not counted towards the financial obligations of Parties included in Annex I’. Paragraph 2(f) requires that CDM project design documents should ‘provide an affirmation’ that these restrictions have been met. These operational principles were echoed in 2004 in decision 22/CP.10, which states that ‘each Party included in Annex II shall provide information on the implementation of Article 11 of the Kyoto Protocol [(finance provisions)], in particular information on what new and additional financial resources have been provided’ and ‘in what way these resources are new and additional’ (Annex, §II, J). These initial institutional rules operationalising the CDM

reinforced general principles of additionality of finance in both the Convention and Kyoto Protocol, and appear to state clearly what is required of developed countries' finance contributions through the mechanism. However, the rules actually reinforce earlier ambiguity, since they do not include a definition of what "new and additional" should entail or any information on baselines, either for ODA or other climate finance flows, making an objective calculation of additionality impossible and leaving developed countries explicitly with control over how they determine and report on notions of additionality within their financial contributions.

6.3.2 Pursuing new rules on additionality as part of SCCF operationalisation

Development of operational guidance for the Special Climate Change Fund, created in at COP-7 in 2001 alongside the LDC Fund and Adaptation Fund, presented a space for discussion on additionality and the potential for more detailed rules. Initially, decision 7/CP.7, which launched the SCCF, 'established that there is a need for funding, including funding that is new and additional to contributions which are allocated to the climate change focal area of the Global Environment Facility and to multilateral and bilateral funding'. This is clearly in line with the precedent set by the Convention and bolstered by the CDM for only making reference to additionality, rather than institutionalising a clear definition or creating procedures to control finance flows. The funds created at COP-7 were accompanied by a statement of financial support from the EU and five other developed countries, which pledged US$410 million per year by 2005 (FCCC/CP/2001/MISC.4, p7):

> *Funding to be counted can include: contributions to GEF climate change related activities; bilateral and multilateral funding additional to current levels; funding for the special climate change funds, the Kyoto Protocol Adaptation Fund and the LDC fund; and funding deriving from the share of proceeds of the clean development mechanism following entry into force of the Kyoto Protocol.*

The statement shows that, without institutional guidelines, developed countries would include virtually all flows of finance when calculating their contributions, making it almost impossible to enforce any consistent and meaningful measure of which flows are additional to others or to prevent double counting, and thus to actually ensure the spirit of "new and additional" is implemented in a manner that ensures a reasonable standard of additionality.

The introduction to decision 7/CP.8 in 2002 initiated development of SCCF guidance, but it only recalled the previous decision and did not add detail on implementing the general expectation of "new and additional" funding, reinforcing this phrase, and its inherent ambiguity, as part of the institutional structure of the UNFCCC. A more concerted

effort to gather a coalition behind more detailed institutional rules on additionality is evident at COP-9, where the G77/China emphasised that a draft decision on SCCF guidance 'lacked reference to the additionality of the funds' (ENB-225) and noted that 'the SCCF should be financed from new and additional funds' (ENB-226). The group continued to press this point when, following a revised draft, they 'addressed concerns that the text, inter alia, had not incorporated elements regarding the predictability, and new and additional nature of the funding' (ENB-227). Developed countries pushed back against the concerns raised by the G77/China; first, 'while noting minor concerns over the draft decision, the EU, Canada and Norway said the draft decision provides a good basis for negotiations' (ENB-225), and then, 'noting that the text was a good basis for negotiations, the EU and Canada said several elements had not been included in the revised text' (ENB-227). The final decision 5/CP.9 contains no reference to the additionality of SCCF funds, meaning developed countries prevailed and the opportunity to alter the existing policy path was not taken, preserving developed countries' control over additionality definitions and calculations.

6.3.3 Additionality within the broad remit of Copenhagen negotiations

A broad negotiating landscape leading up to COP-15 in Copenhagen in 2009 made the drive to ensure additionality increasingly complex, since almost all aspects of climate finance were open for policy discussion in the AWG-LCA process and the weakness of prior policy concerning additionality gave very little beyond the "new and additional" sentiment in the Convention to build from. Developed countries sought to retain the advantages obtained from the Convention's freedom for donor countries to define the relationship between climate finance and ODA. Key financial commitments were made at COP-15 in Copenhagen, and more firmly established at Cancún the following year, bringing the focus for climate finance policy within the UNFCCC onto how these headline commitments should be implemented. Initial policies at Copenhagen and Cancún were strongly influenced by developed countries' reinforcement of existing path dependent policies, maintaining institutional structures that were relatively stable and remained rooted in the Convention. These structures built on the early years of policy outlined above and were firmly established as UNFCCC negotiations led towards COP-15 and 16, constraining the eventual outcome and, in tandem with developed countries' continued drive to maintain the voluntary paradigm underpinning the control of finance levels (see Chapter 5), ensuring that developed countries retained the freedom over additionality that had begun in the Convention.

Developing countries continued to call for clarity on additionality: at AWG-LCA-2 (before COP-14), 'China indicated that financial support flows should be separate and

distinct' from ODA (ENB-358) and at AWG-LCA-3 (before COP-14), the G-77/China 'proposed a financial mechanism based on the principles, inter alia, of: direct access to funding, new and additional resources, and predictability' (ENB-381). At AWG-LCA-5, 'South Africa emphasized that climate change financing should not be merely a reshaping of ODA' (ENB-399) and at AWG-LCA-6, Sierra Leone, for LDCs, highlighted the need 'for a "massive scale" of financing outside ODA' (ENB-315). At the intercessional meeting between AWG-LCA-6 & 7, South Africa and Bangladesh 'emphasized new additional and predictable funding, beyond current ODA levels' (ENB-406), and at AWG-LCA-7 (before COP-15), the G-77/China, supported by the LDCs and the African Group, said funding should be 'additional to ODA' (ENB-431).

The dynamics between developed and developing countries over use of ODA, and the enduring institutional legacy of the development assistance system and North-South relationships, are evident in ENB-438, which records AWG-LCA-7 (before COP-15):

> *On the provision and generation of financial resources, Antigua and Barbuda, for AOSIS, expressed concern that many of the proposals appeared to be donor/recipient arrangements. With the Philippines, for the G-77/China, she said that the disbursement of funds should be science-based and should not be counted towards ODA. The G-77/China expressed concern that ODA would be diverted to climate change-related activities at the expense of other development activities... Highlighting the need to significantly scale up financial resources, Japan cautioned against excluding ODA. Canada described the term "ODA" as a technical accounting concept. He called for careful consideration of "donor/recipient dynamics" and proposed the use of the terms "provider/user."*

Note that Canada's statement implies that ODA is a "technical accounting concept" and therefore not a significant issue, but this is precisely the concern for many developing countries; without a common standard for conducting this accounting, and thus holding developed countries' calculations to account for the additionality, or otherwise, of their climate finance contributions, ODA and additionality remain procedural areas in which developed countries can obscure the under-delivery of climate finance. The Canadian and Japanese statements show that developed countries sought to oppose directly the imposition of additionality rules on their finance contributions.

There was limited progress resolving these divisions at COP-15 in Copenhagen. The negotiation text included bracketed reference to the main source of funding being 'new and additional provided by developed countries listed in Annex II over and above financing provided through institutions outside the framework of the financial mechanism of the Convention' (ENB-447), but these were cut to only cursory reference to the now-standard

"new and additional" resources in the brief final text of the Copenhagen Accord, along with assurance that the 'collective commitment by developed countries is to provide new and additional resources' (decision 2/CP.15, paragraph 8). After the Copenhagen pledges of US$100bn per year by 2020 and US$30bn "fast-start finance" between 2010 and 2012 were in place, discussions moved to implementation policy. At AWG-LCA-10 (before COP-16), the African Group 'highlighted the need to assess, inter alia, whether support by Annex II parties is delivered in a simplified manner, with direct access, and whether it is new and additional grant-based assistance from public resources' (ENB-467). At COP-16, 'on fast-start finance, developing countries said text should provide more details on transparency, including whether the funding is genuinely new and additional' (ENB-495).

The discussions on transparency at AWG-LCA-10 also prompted countries to raise the issue of how to define climate finance. China 'identified the need for guidelines for the provision of new and additional finance. India emphasized the need for a set of common guidelines on what constitutes climate change financing and verification of support by a third party' (ENB-466) and Brazil 'called for guidelines on defining new and additional financing' (ENB-467). This meeting is one of the relatively few occasions that direct discussion on defining climate finance is recorded, despite how relevant the question is to UNFCCC policy and how frequently it is mentioned in academic research on additionality. More commonly, statements from developing countries suggest that the language of the Convention was shaping developing country negotiating positions and constraining their expectations, further strengthening the limits of UNFCCC policy. For example, at AWG-LCA-12 (before COP-16), Cuba 'said the reference to "mobilization of long-term finance" is an "empty concept" and said it should reiterate the language in the BAP [Bali Action Plan] on provision of new, additional and predictable financial resources' (ENB-482). However, without the definition of climate finance and any kind of baseline or ODA guidelines, repeated reinforcement of the "new and additional" expectation has had limited effect on practical functioning of the climate finance system.

Rather than referring to the priorities of developing countries and any ethical basis for particular transparency and additionality rules, the more neutral and technical perspective pushed by developed countries is in evidence when the Cancún Agreements (decision 1/CP.16) state that 'mobilization and provision of scaled-up, new, additional, adequate and predictable financial resources is necessary to address the adaptation and mitigation needs of developing countries' (paragraph 1(d)). This concluded a phase of negotiations in which there were some instances where coalitions of developing countries made a concentrated push for clarity on additionality rules or a definition of climate finance that can better allow developing countries to hold developed countries to account for the

"new and additional" nature of their contributions. Overall, however, additionality was lost within the multitude of issues and policy areas open to negotiation leading up to the Copenhagen Accord and its operationalisation. No progress can be identified in policy terms, with the same "new and additional" phrase repeatedly reinforced as the limit of UNFCCC rules on the subject. This left the North-South power balance initiated with the Convention intact, with developed countries able to advocate maintaining the existing policy path and thus retaining the advantage they gained from the ambiguity surrounding additionality under the broader voluntary paradigm, while developing countries were unable to build a coalition of sufficient strength or gain legitimacy for their ideas and secure institutional change.

6.3.4 Continuing efforts to secure a UNFCCC definition of climate finance

Developed countries claimed that the US$30bn fast-start finance committed at Copenhagen had been fully delivered (e.g. ENB-558), but with evidence that little of it was additional to ODA (Fallasch and De Marez 2010, Fransen et al. 2012, Kharas 2015), developing countries had practical experience of developed countries sidestepping the now long-established new and additional principle. Developing countries such as the Solomon Islands declared this was 'damaging the fragile confidence that we have' in the prospect of developed countries fulfilling their commitments, and by extension continued to erode trust within the UNFCCC (Li 2011). Although this principle had been repeated in multiple COP decisions by this point, there remained no agreed definition of climate finance or baselines that are essential for ensuring that what happened with fast-start finance would not happen to climate finance over the longer term. COP-15 and 16 had reinforced institutional structures that prevented the UNFCCC taking control of calculating flows of climate finance and oversight of additionality, so developing countries faced an uphill struggle to ensure their needs were reflected in the comprehensive climate agreement planned for COP-21 in Paris in 2015.

Calls for clarity on what constitutes climate finance, and criteria for new and additional finance in particular, increased markedly from COP-17 onwards, in response to contestation over the additionality of fast-start finance and the more distinct need and opportunity to hold developed countries to account about exactly what finance flows should be considered relevant to fulfil the longer-term US$100bn commitment. In COP-17 discussions about fast-start finance, one developing country 'said that new and additional criteria for finance had not been clarified' (ENB-532), and then at COP-18, the Philippines 'observed that there is no common understanding of what constitutes climate change financing', and 'Kenya and Uganda called for a clear definition of climate finance. Bangladesh highlighted the absence of differentiation between climate finance and official

development assistance' (ENB-560). Also at COP-18, 'Papua New Guinea called for clarifying what constitutes climate finance, expressing concern that significant amounts are channeled [sic] to the private sector or fall under official development assistance' (ENB-585). At ADP 2 (before COP-19), the Philippines gave a clear illustration of developing countries' desire to hold developed countries to account for their responsibilities when they 'called for urgent implementation of developed country parties' obligations under the Convention; lamenting the lack of common understanding on finance twenty years after the Convention was negotiated' (ENB-568).

At COP-19 in 2013, after three intercessional meetings on long term finance, 'acknowledging progress made, many representatives stressed that further work is required on: climate finance definitions' (ENB-583) and 'Egypt stressed the need to define predictability and additionality of climate finance' (ENB-592). Decision 3/CP.19 on long term finance requests the Standing Committee on Finance (an internal UNFCCC advisory body), 'in the context of the preparation of its biennial assessment and overview of climate finance flows, to consider ongoing technical work on operational definitions of climate finance, including private finance mobilized by public interventions' (paragraph 11). This decision constitutes, at least on paper, a direct challenge to the path dependent policies that had left control of designating funds as climate finance in the hands of donor countries for 20 years. With development of the intended nationally determined contributions (INDC) system in the lead-up to COP-21 and reinforcement of the voluntary paradigm in a comprehensive new stage of the climate regime (see 2.3.3 above), the Paris Agreement was likely to be the last significant window in the policy process to alter well-established institutional structures that left the UNFCCC without a detailed definition of climate finance and thus without an institutional mechanism to exert control over designating funds as climate finance and keeping track of flows. Parties were invited at COP-19 to provide details of the emissions reduction, adaptation and support efforts they were willing to contribute to the combined international climate change response, in the form of voluntary INDCs. Although there are no recorded direct references to definitions in the context of INDCs, there was an important lack of standardisation within the INDC system, including with finance (Höhne et al. 2017), and no reference to the "technical work" being undertaken by the Standing Committee on Finance.

Evidence from the negotiations suggests a wide range of developing countries sought to gather a strong coalition of actors to overcome the established institutional structure concerning additionality. At ADP 2-4 in 2014 (before COP-20), 'Grenada urged agreement on the definition of climate finance, pointing to the categorization of ODA and humanitarian assistance as climate flows' and 'the LDCs and the Philippines called for a

definition of climate finance' (ENB-595). At ADP 2-5, 'CARICOM, Bangladesh and Guyana called for developing a common definition of climate finance', and AILAC said an internationally agreed methodology for tracking financial flows should include 'a common definition of climate finance to avoid double counting' (ENB-598). At ADP 2-6, 'Chile and CARICOM called for a definition of climate finance' (ENB-602). At COP-20, 'AOSIS and AILAC called for a clear definition of climate finance, with AILAC stressing this will help avoid double counting' (ENB-613), and CARICOM 'stressed the needs to clearly define climate finance as funds aimed entirely at addressing climate change and as being new and additional to official development assistance' (ENB-616). However, despite these numerous appeals for a climate finance definition, the working draft of an agreement that formed the Lima Call for Climate Action (decision 1/CP.20) contained numerous finance provisions that made reference to new and additional funds and transparency, but did not include mention of defining climate finance or additionality, indicating that a coalition of sufficient strength was not obtained and institutional structures in this area held firm.

At ADP 2-11 in 2015 (before COP-21), the Arab Group 'requested a placeholder for the definition of "climate finance"' in the definitions section of the final agreement (ENB-649), but at COP-21 itself, 'new textual proposals, emphasizing [sic] climate finance as specifically defined in the new agreement' was one of various issues that 'prompted many parties to express concerns about little progress' (ENB-656). The final Paris Agreement makes no reference to a definition of climate finance or a process to agree one, only requesting that modalities, procedures and guidelines should take into account 'the need to ensure that double counting is avoided' (Decision 1/CP.21, paragraph 92(f)). As such, it appears that the existing institutional structures held and, in the context of the NDC system[3], Parties remain responsible for how they determine the additionality of their own contributions and whether they uphold the general expectations of policy to provide new and additional finance. The only additional relevant policy was decision 9/CP.21 on methodologies for reporting financial information by Annex I Parties, in which the COP 'recognizes the need to enhance common understanding on key terminology for reporting financial information under the Convention to facilitate transparency and comparability of information and data' (paragraph 1). These provisions cannot be considered a significant advance beyond previous policies, especially since there was no reference to the work supposedly initiated by decision 3/CP.19 two years previously.

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[3] The "I" for "intended" was dropped after the Paris Agreement was adopted at COP-21.

6.3.5 Negotiations around additionality calculations prior to COP-21

With the headline finance pledges agreed in Copenhagen reaffirmed in Cancún, developing countries used the language of transparency in their continued efforts to strengthen the institutional structure related to additionality. There has been an ongoing lack of transparency across the broader climate finance system, leading to consistent double counting (Pereira et al. 2013), so calls for transparency relate to holding developed countries to account for the climate finance pledges they have made and developing countries' concern with ensuring additionality, and are associated with clear accounting rules and procedures standardised across all contributor countries (Weikmans and Roberts 2019). Transparency is inherently connected with developing countries' calls for clarity on definitions of climate finance and "new and additional", and formed part of their broader efforts to secure robust MRV of developing countries' support.

At COP-17 discussions on fast-start finance in 2011, 'one developing country called for reporting with total transparency' but 'some developed countries said that it was "discouraging" to receive so little credit for efforts towards fast-start finance and called for a paragraph on enhancing transparency to be deleted' (ENB-532). Nicaragua criticised 'the transparency of fast start finance' and 'Egypt noted the need for clarity on the predictability, sustainability, additionality and transparency of support' (ENB-534). There is evidence of a response to these concerns in policy at COP-17, with decision 2/CP.17 requiring that the financial information in developed countries' biennial reports to the UNFCCC should include 'an indication of what new and additional financial resources they have provided pursuant to Article 4, paragraph 3, of the Convention' and 'Parties shall clarify how they have determined that such resources are new and additional' (paragraph 18(f)). However, since each Party must only 'report in a rigorous, robust and transparent manner the underlying assumptions and methodologies used to produce information on finance' (paragraph 15), rather than use common accounting procedures that could assuage developing country concerns, the policy actually reinforces the established institutional structure of donor country control over accounting and designating resources as new and additional.

Developing countries continued to press for transparency. At COP-18, the LDCs 'stressed transparency and additionality of financial resources' (ENB-558) and ADP 2-2 (before COP-19), 'to bridge the trust gap and address the challenge of the insufficient provision of means of implementation [(finance, technology transfer and capacity building)], the Republic of Korea proposed developing MRV for finance with clear definitions, baselines and scope' (ENB-575). At COP-19, the G-77/China 'called for identification of specific amounts, timelines and sources of finance to strengthen the current reporting system' (ENB-587), the African Group stressed the need for improved transparency in finance

commitments, and Saint Lucia called for a 'standardized format for reporting by developed countries' (both ENB-588).

In advance of COP-20 in 2014, numerous developing countries and blocs argued for transparency and common accounting rules with reference to additionality. At ADP 2-4, 'Brazil said NDCs must provide in a clear, transparent and verifiable manner their intentions regarding provision of finance, including...demonstrating additionality to official development assistance', South Africa 'called for improving the ex post system of MRV to eliminate double counting', and 'Ecuador recalled their submission on transparency of climate finance, stressing only funds that are entirely aimed at addressing climate change should be counted towards obligations on climate finance' (all ENB-595). At ADP 2-5, 'Algeria, with other developing countries, called for clear accounting rules in the 2015 agreement', 'China expressed concern over lack of methodology for reporting on support', 'AILAC supported an internationally agreed methodology for tracking financial flows', 'Iran said developed countries should provide ex ante information on MOI in a common template', 'the Philippines said MRV of support should include enhanced reporting procedures for Annex II parties based on comparability of efforts', and 'Brazil emphasized preventing double-counting' (all ENB-598).

There were further references to transparency, additionality and avoiding double counting at COP-20, where the Business and Industry NGOs constituency (BINGOs) stressed 'the importance of establishing credible and transparent MRV and avoiding double counting' (ENB-611) and AOSIS 'emphasized the need for common reporting formats' (ENB-616). The extent and range of developing countries' coalition building in 2014 demonstrates the strength of the Southern push against Northern control of additionality and accounting, and thereby against path dependent institutional structures that had contributed to developed countries preventing stronger UNFCCC rules in this area for such a long period. Reflecting this push, the draft negotiating output from COP-20 included numerous references to transparency of support and a requirement that developed country Parties mobilise finance that 'is quantifiable, comparable and transparent' (decision 1/CP.20, paragraph 35.2(t)). The draft for Section J, on transparency of action and support, included options for a common transparency framework in order to facilitate comparison and accountability, and an option for the COP to elaborate rules for transparency and accounting that will cover whether funds are new and additional (paragraph 69, option 1(i) and option 3(j)). As the Paris conference approached, the Indian government (Dasgupta and Government of India 2015) and civil society organisations (Adaptation Watch 2015) issued a direct, public challenge to developed countries' estimates of how much finance they were delivering and how much was new and additional, demonstrating the low levels of trust

developing countries had in the UNFCCC system to ensure finance commitments were kept and the expectation of additionality was met.

Despite these challenges within and outside the negotiation process, and the potential shown in the draft sections prepared at COP-20, the Paris Agreement itself is very limited in references to additionality and transparency of accounting. Decision 1/CP.21, which covers implementation of the Agreement, includes in paragraph 92(f) a request that the Ad Hoc Working Group on the Paris Agreement, created to develop modalities, procedures and guidelines for implementing the Agreement takes into account 'the need to ensure that double counting is avoided' in finance accounting. In the Paris Agreement itself, Article 9 includes a stipulation that 'developed country Parties shall provide transparent and consistent information on support for developing country Parties' (paragraph 9), but aside from a reference in the same article that 'mobilization of climate finance should represent a progression beyond previous efforts' (paragraph 3), there is no reference to additionality or ODA. Article 13 initiates a transparency framework for support, with the aim 'to provide clarity on support provided and received by relevant individual Parties' (paragraph 6), but again there is no reference to additionality. Thus, the potential evident in the Lima draft text was lost in Paris, and the new NDC regime was initiated without even the standard wording of "new and additional" to shape the actions of Parties contributing climate finance, reinforcing the institutional structure that gave contributor countries control over determining and accounting for additionality.

6.4 Sources of UNFCCC climate finance

Debate over the sources of climate finance has evolved considerably over the course of UNFCCC negotiations. The differences between how developed and developing countries perceived climate finance were left unresolved by vague wording in the Convention, which permitted all sources of climate finance without offering any clarity on how policy should be structured or how future decisions on available sources should be made. In a similar manner to additionality, a normative frame was avoided, so as the extent of necessary climate finance became clearer over time and private and other "innovative" sources became more prominent across the broader landscape of climate finance as well as within the UNFCCC, institutional rules from which to build policy were ambiguous and the expectations of different actors were not aligned. It is within this ambiguous institutional space that developed and developing countries sought to ensure their perspective and preferences on finance sources, whether based on justice or economic practicalities, would be translated into more detailed institutional rules and policy that would underpin finance commitments and new funding institutions. This section will examine how actor interaction

and policy making progressed from this ambiguous beginning, addressing the distinct North-South split evident in negotiations on finance sources and the challenge for coalitions of developing countries to form a bargaining position consistent both between countries and over time; finance sources has been the area where developing countries have been least unified in their objectives as harsh political realities, underpinned by donor control over climate finance and the broader development/ODA sector, have exposed the huge gulf between available public funding and the need for climate finance.

6.4.1 Initial navigation of rule ambiguity

From early in the UNFCCC negotiation process, developed countries pushed to reinforce the control they gained from the Convention over how finance was sourced. Initially this encompassed a range of sources, rather than the focus on private finance and investment that would develop in later years. For example, at INC-11 in 1995 (before COP-1), France 'noted that in addition to the GEF, other traditional sources of funding are important, including multilateral banks, financial assistance, private sector and national resources' (ENB-3). At COP-3 in 1997 the US 'pointed to the need for finding innovative sources of financing involving the private sector' (ENB-70), and at SBI-10 in 1999 (before COP-5), 'the EU and US supported Switzerland's written proposal that all bilateral and multilateral contributions, not just GEF efforts, be taken into consideration' in the review of GEF activities (ENB-100). At COP-6, 'Japan said the widest possible range of resources should be mobilized, including ODA', and China, Norway and Canada held consultations 'on the possible role of multilateral funding institutions' in the Clean Development Mechanism (ENB-161), and 'Finland said the GEF is not the only funding channel, and stressed the availability of bilateral and private sector funds' (ENB-160).

Little pushback or contrary perspectives from developing countries are documented in the ENB record at these early stages, and policy began to build up largely consistent with the Convention's openness to multiple private, bilateral and multilateral sources. The Kyoto Protocol built directly on Convention provisions by stating that the Meeting of the Parties (the equivalent of COP) will 'seek to mobilize additional financial resources' (Article 13). Decision 11/CP.4 the following year noted that 'Annex II Parties are providing bilateral contributions' in addition to GEF funding (paragraph 11) and 10/CP.5 decided that financial and technical support for capacity building 'should be provided through the financial mechanism and through bilateral and multilateral agencies, as appropriate' (paragraph 1(a)). These policies were confirmed at COP-7, where the LDC Fund and SCCF were created; decision 7/CP.7 decides that new and additional funding should be provided through increased GEF replenishment, the SCCF, LDC Fund and bilateral and multilateral channels

(paragraph 1(c)), and decision 5/CP.7 details which adverse effects activities should be funded by the GEF, SCCF, Adaptation Fund and other bilateral and multilateral sources (paragraphs 7-8).

Building on the institutional precedent for "mobilising" climate finance, donor countries began to advocate a "catalyst" role for public funding that flowed through the UNFCCC system (Mace 2005, p. 237), which initiated a lasting drive to institutionalise public finance as a means to "leverage" greater sums from private sources, thereby diminishing the connection between historical responsibility and public finance and the characterisation of climate finance as compensation in line with developed countries' positions when negotiating the Convention. For example, at SBI-18 in 2003 (before COP-9), 'the EU stressed that the SCCF should have a catalytic function' (ENB-215) and at COP-9, 'the EU said the SCCF should be a catalyst for leveraging additional resources from bilateral and multilateral sources' (ENB-223). The introduction to decision 1/CP.12 recognised the need for the GEF to 'continue its efforts to mobilize additional resources to support the implementation of eligible project activities' and reiterated that the SCCF should be a 'catalyst to leverage additional resources from bilateral and other multilateral sources', adding to the institutional rule structure in line with developed countries' interests and their interpretation of the Convention.

6.4.2 Developed countries strengthen institutional structures as developing countries demonstrate increasingly conflicted priorities

Developing countries faced a growing challenge as they gained more operational experience of the climate finance regime and a greater range of sources became available for investing in climate change actions. The latter developments were acknowledged explicitly in UNFCCC policy when the introduction to decision 9/CP.10 noted that 'in recent years there has been an increase in the number of funding sources available for activities relating to climate change'. With funding levels remaining inadequate to meet their needs, developing countries were caught between promoting new and "innovative", usually private sources that could generate higher levels of climate finance, and maintaining their long-held prioritisation of public finance that aligns with principles of North-South restitution and compensation for climate harms. For example, in discussions on technology transfer at SBSTA-20 in 2004 (before COP-10), Thailand, supported by the G-77/China, and opposed by the US, EU, Canada, Switzerland and Japan, encouraged a planned workshop on innovative financing 'to generate concrete proposals on funding mechanisms under UNFCCC Article 4.5 (technology transfer)' (ENB-236). Perhaps counterintuitive in terms of the perspectives of developing and developed countries on the subject, the enthusiasm of developing countries here illustrates the complex negotiating position they occupied.

In contrast, developed countries had a clear interest in maintaining the structure that did not prioritise public over private sources, originally institutionalised in the Convention, and they sought to frame this openness to multiple sources as advantageous to the UNFCCC climate finance system as a whole. For example, at COP-12 in 2006, 'the EU and Australia highlighted the value of looking at all sources of funding for the Convention's implementation' (ENB-315), and decision 2/CP.12 on the financial mechanism requested the GEF to report to COP-13 on 'efforts to engage the private sector in providing resources to address climate change' (paragraph 3(d)). Other policy further reinforced established, structural expectations that UNFCCC funds would not be limited to public funding, such as the initial modalities for the Adaptation Fund, which included the 'ability to receive contributions from other sources of funding' (decision 5/CMP.2, paragraph 2(e)). Wary of seeing developed countries push their obligations onto the private sector, but at the same time keen to encourage any new sources and channels of finance, developing countries were unable to coalesce around a negotiation position that could directly challenge the path dependent policy structures already in place. Instead, developing countries demonstrated a variety of perspectives on the emerging landscape of public, private and "innovative" funding sources.

6.4.2.1 Developed countries' clear priority to increase private finance

Developed countries consistently highlighted the role that private finance can play in filling the gap between public finance and the sums actually required. Their statements presented it as fact that private sources have much greater potential for climate finance, and there was a notable absence of any reference to the idea that climate finance is a moral obligation as yet unfulfilled. Instead, developed countries used language that implied a combined effort to achieve a goal, with public and private sources simply part of a spectrum of options, rather than a politically- and ethically-loaded policy question with the significant repercussions that developing countries have repeatedly sought to highlight. Efforts to cast the question of sources in a technical, ethically-neutral light can be seen throughout the AWG-LCA process that led to COP-15 in Copenhagen in 2009. For example, at the first Convention Dialogue meeting in 2006 (before COP-12), 'the European Community stressed the role of the private sector, noting that the total value of the global carbon market in 2005 was many times greater than government funding for' the GEF (ENB-297). At COP-13, the US suggested that 'the private sector would provide the bulk of immediate investments' for implementing the Convention (ENB-345), and at AWG-LCA-1 (before COP-14), 'the US indicated that the private sector would generate the majority of financing' (ENB-361). At AWG-LCA-2 (before COP-14), the US said 'public support for research and development and national enabling

environments would promote private sector investment' (ENB-368) and 'the private sector should become the main source of funding', while 'the EU underlined the role of the carbon market, innovative financing and leveraging private investments' (ENB-370).

At COP-14 in 2008, 'the US, Norway and Canada highlighted the importance of the private sector' (ENB-390). At the intercessional meeting between AWG-LCA-6 and 7 (before COP-15), the US 'stressed the role of private sources in generating the scale of financing needed' (ENB-424). At AWG-LCA-10 (before COP-16), 'Canada supported the establishment of new market mechanisms' and suggested that 'carbon markets contribute to low-cost mitigation and mobilization of private finance', while 'the EU and US highlighted the role of market mechanisms in mobilizing the US$100 billion of annual funding agreed in Copenhagen' (ENB-467). The UNFCCC itself contributed to this increase in neutral language, with the UN Secretary-General's High-level Advisory Group on Climate Change Finance concluding at COP-16 that 'it will be challenging but possible to mobilize US$100 billion annually for climate action in developing countries by 2020 and that a combination of different sources will be necessary' (ENB-488). In the face of developing countries 'demanding fulfilment [sic] of a legal commitment" (ENB-439) to provide finance, reinforcing the Convention's neutrality in terms of public and private sources meant developed countries could shift the emphasis of climate finance negotiations away from their obligations and onto how best to attract greater levels of private finance, presenting this as the only way to meet developing countries' needs.

6.4.2.2 Developing countries' changing and varied perspectives

Developing countries' challenge to balance the need to encourage any possible new sources of funding with their desire to ensure that developed countries carry a fair share of the burden emerged as increasingly significant within policy negotiations in the lead-up to COP-15. Some countries, particularly larger developing countries, promoted innovative sources, and many echoed developed countries' statements on the practical reality of requiring private finance. For example, at the first "Convention Dialogue" meeting (before COP-12), the Philippines 'highlighted the need for innovative ways of financing' and 'urged innovative mechanisms for financing adaptation' (ENB-297), and at COP-12, South Africa 'stressed the need for innovative financing mechanisms to support climate action' (ENB-317). At AWG-LCA-1, (before COP-14), the G-77/China and others called for 'developing a mechanism to mobilize resources', 'China stressed innovative funding mechanisms' for technology transfer (ENB-361), and 'Mexico noted the need to consider innovative means of financing' (ENB-367). At COP-14, 'Brazil said new options are needed to provide the vast resources required (ENB-390) and 'Bangladesh underlined the need to involve and

incentivize the private sector' (ENB-391). At AWG-LCA-6 (before COP-15), 'Turkey identified the need to mobilize the private sector in addition to public funding' and Tuvalu 'stressed the need for a variety of sources and for innovative funding, such as levies on international transport and a share of proceeds on market mechanisms that may be developed under the AWG-LCA' (ENB-415), reflecting broader conversations about possible ways to generate the required levels of climate finance. At AWG-LCA-10 (before COP-16), 'Guyana explained that from a "pragmatic and realistic standpoint" market sources are needed to complement public funding' (ENB-467).

On other occasions, developing countries pushed back against the rise of private and innovative sources: at the fourth Convention Dialogue (before COP-13), 'discussions on investment invited familiar developing country concerns about the risks of relying too heavily on flows of private investment' (ENB-336). At AWG-LCA-2 (before COP-14), the G-77/China said 'funding should come from implementation of Annex I countries' commitments' and 'India, the African Group, China and AOSIS stated that the private sector can play only a limited role' (ENB-370). At the intercessional meeting between AWG-LCA-6 & 7 (before COP-15), 'China said that the increasing emphasis on the private sector as a source of finance would lead to unpredictable funding, stressing that finance should be provided by the public sector' (ENB-424), and Venezuela, with Egypt, Argentina, Sri Lanka and the African Group, 'said funding should come from public sources' (ENB-425). Concerns were also raised about developing countries, particularly LDCs, being able to access private finance, such as at AWG-LCA-6, when 'Tanzania highlighted that LDCs are not able to solicit funding from the private sector' and 'the Gambia described failed attempts to involve the private sector in her country' (ENB-415). In addition, developing countries highlighted adaptation, which often lacks the features necessary to attract profit-motivated private investment. For example, at AWG-LCA-6, the African Group 'said public financing is essential for adaptation technologies, which often do not attract private sector investment' (ENB-416).

Ultimately, developing countries' expectations and priorities were changing. There was increasing acceptance that public and private finance were both required, mixed with ongoing concern that developed countries should not use private sources to undermine their commitments or obscure their failure to deliver public finance. At AWG-LCA-6 (before COP-15) 'many developing countries also stressed the need for public financing, saying that the private sector and carbon markets should play a complementary role' (ENB-415), and 'while identifying the need to engage the private sector, the G-77/China emphasized that this cannot substitute the implementation of developed countries' commitments under the Convention. He also urged ensuring that the public sector is the primary source of funding'

(ENB-416) and Colombia 'expressed concern that parties' commitments would be transferred to the private sector' (ENB-415). Overall, the debate was summarised in this extract recording discussions at the intercessional meeting between AWG-LCA-6 & 7:

> *'debate centered [sic] on whether funds should be derived from strictly public sources or a mix of both public and private sources. Developing countries generally preferred that the primary sources of funds be public, with no conditionalities. Developed countries highlighted the role of private sources, preferring a mix of the two. Switzerland said that there was convergence on public and private sources but not on their respective roles... Barbados pointed to divergence on the extent to which public and private sources will play in the generation of funds'.* (ENB-427)

This disagreement continued at AWG-LCA-7 (before COP-15), where in the closing plenary, the Vice-Chair 'highlighted a common understanding that public and private sources of funding are needed but noted that no common view prevailed on the main source' (ENB-439).

COP-15 at Copenhagen ended in widely-publicised disappointment, with little to show for the prior years of heightened negotiation rounds, but the Copenhagen Accord did include key headline targets for provision of climate finance (examined in more detail in Chapter 5). However, the commitment was to 'mobilizing jointly USD 100 billion dollars a year by 2020', which 'will come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance' and can include 'investments through international institutions' (decision 2/CP.15, paragraph 8). Accompanied by an explicit reference to previous policy, the Cancún Agreements the following year (decision 1/CP.16) state that 'funds provided to developing country Parties may come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources' (paragraph 99). Despite a wide range of suggestions and perspectives in evidence between and amongst developed and developing countries, policy outcomes remained highly constrained within the existing path allowing flexibility of sources and channels, and lack of moral basis or reference to compensation. While the headline targets are a key milestone in UNFCCC climate finance and have formed the foundation of subsequent policy architecture, the failure to address the concerns of developing countries regarding prioritising public finance and transferring responsibility onto the private sector, indicates that the associated layers of policy were a product of and reinforced the institutional structures that have shaped expectations about the kind of policy framework that the UNFCCC can produce.

6.4.3 Ongoing battle to secure institutional change without limiting finance

The previous section showed that developing countries faced a complex challenge to encourage the scaling up of climate finance, while simultaneously recognising the necessity of private and innovative sources, and seeking to ensure that developed countries fulfil the obligations to provide finance that are established as a principle in the UNFCCC and championed by developing countries and NGOs alike as an ethical responsibility in light of the harms of climate change. With the Convention clearly permitting any and all sources of funding to be part of fulfilling developed countries' commitments within the UNFCCC system, developing countries have repeatedly highlighted the role of public finance but have had little success overcoming the policy path initiated by the Convention's original openness. These concerns were combined with the ambiguity of the Copenhagen finance commitments, which gave little detail on how the commitments would be fulfilled and left a gap in policy between fast-start finance and the longer term US$100bn commitment (covered in more detail in Chapter 5); for example, at COP-17, Nicaragua criticised 'the transparency of fast start finance and the absence of identified funding sources' for financing the GCF (ENB-634).

6.4.3.1 Developing countries constrained by conflicting priorities

Developing countries continued to highlight developed countries' responsibilities and articulate concerns that these would be shifted onto the private sector. For example, at COP-17 in 2011, 'Nigeria, Tanzania and Zambia warned against overreliance on the private sector' for GCF funding (ENB-529), and at the AWG-LCA intercessional meeting before COP-18, Algeria, for the G-77/China, highlighted 'public long-term finance', and 'many developing countries stressed that the role of the private sector in financing REDD+ cannot replace Annex I parties' financing obligations, nor public funding' (ENB-549). At COP-19, 'Ecuador highlighted the need to ensure finance from parties, not only the private sector' (ENB-592) and at ADP 2-5 (before COP-20), 'Venezuela stressed that developed countries' responsibility cannot be transferred to the private sector' (ENB-598). At COP-20, the African Group 'said that commitments should not shift responsibility from developed to developing countries, nor encourage private over public support' (ENB-613) and 'Brazil noted that including private sector involvement in the new agreement does not ensure climate finance' (ENB-617). In addition, some developing countries called for clarity on which sources developed countries proposed to use to fulfil their finance commitments: at COP-20, 'Ethiopia called for clear communication by developed countries on the amount and sources of their finance commitments' (ENB-616). Sometimes these concerns led to calls for clarity on provision of

public finance, such as at ADP 2-8 (before COP-21), when 'China urged a clear road map with targets for public funding from developed countries and progressively scaled up finance' (ENB-622).

Just as in previous rounds of negotiation, many developing countries also continued to express consistently their preference for prioritising public finance. At COP-17, 'Malawi underlined the role of public finance' (ENB-534), at AWG-LCA-15 (before COP-18), AOSIS 'emphasized that small island developing States (SIDS) have high adaptation needs for which private sources of financing are not generally available' (ENB-538). At COP-19, 'many developing countries called for...public finance to be the main source of climate finance' (ENB-587), and at ADP 2-6 (before COP-20), 'the LMDCs said public finance should be the major source of climate finance' (ENB-601) and 'Algeria, China, Iran and India stressed public sources of finance, with China, Iran, Ecuador, Palau and Tanzania saying that private sector finance should be complementary' (ENB-602). At COP-20, Egypt and Paraguay emphasised that 'finance should come mainly from public sources' (ENB-611), at ADP 2-9 (before COP-21), 'India and Saudi Arabia, for the Arab Group, stressed public sources as the main source' (ENB-637), and at ADP 2-10 (before COP-21), 'AILAC underlined public funds as the primary source, supplemented with private and alternative sources' (ENB-641). These calls were complemented by a letter sent in advance of COP-20 by 118 NGO groups from 37 countries, which urged UN Secretary-General Ban Ki-moon to 'ensure that private finance is not counted as international climate finance' (Friends of the Earth 2014).

At the same time as warning about shifting responsibilities and highlighting a preference for public finance, a wide range of developing countries and blocs continued to refer to the need for multiple finance sources. At AWG-LCA-15 (before COP-18), Guyana, 'with many others', 'underscored that a variety of sources will be required to achieve the necessary scale of financing' (ENB-541) and at the intercessional meeting between ADP 1 and COP-20, the African Group 'said any future legal outcome should be a further articulation of commitments reflected in the Convention, such as...acceptance of all sources of finance' (ENB-550), showing a key developing country bloc reinforcing the Convention's openness. At ADP 2-2 (before COP-19), regarding REDD+ financing, Ghana stressed the need 'for the GCF to catalyze [sic] finance from public and private sources' and Guyana stressed that 'payments need to come from a variety of sources' (ENB-576), and then at COP-19 the African Group called for 'Annex I countries to leverage private-sector support' (ENB-588). Demonstrating the necessity that some developing countries saw in openness to all sources for maximising levels of climate finance, at COP-20, the African Group 'called for discussing a strategic approach to finance, including addressing sources, predictability, adequacy and stability, and ways to deliver the necessary scale of finance needed to stay

below 2°C' (ENB-611). Also at COP-20, 'India called for greater creativity from developed countries to mobilize innovative sources of finance, such as pension funds' (ENB-616). At ADP 2-8 (before COP-21), the LDCs called for 'new sources of finance' (ENB-622), at ADP 2-9, 'Mexico identified need for all sources' (ENB-637), and at COP-21, the King of Cambodia called for 'stimulating private investments in renewable energy and energy efficiency' (ENB-653).

It is clear that developing countries remained caught in a difficult position, as they had been throughout previous rounds of negotiations. Another NGO letter, this time from 112 groups to OECD finance ministers in 2015, stated that 'private investment in climate-friendly activities is vital and efforts to increase the transparency of these financial flows are welcome. However, private finance should not be substituted for public funding or counted towards the $100 billion' (Orenstein 2015). Trying to navigate the evolving landscape of climate finance with multiple sources and channels, while holding developed countries to account for their ethical obligation to provide funding, developing countries were constrained by the entrenched institutional rule structure that underpinned openness to all sources of finance throughout policy. A clear definition of climate finance based on ethical principles, backed up with standardised accounting procedures, could have given developing countries confidence that the UNFCCC system would hold developed countries to account, and provided a foundation from which to encourage private and innovative sources with less concern that responsibility would be shifted onto them and away from public finance. Instead, developing countries' expectations within the UNFCCC have been shaped by the institutional structure so firmly reinforced by successive layers of policy, and developed countries' failure to provide adequate climate finance and live up to their pledges. This left no solid footing for developing countries to pursue their twin aims within this policy area of stimulating as much finance as possible and ensuring developed countries meet their responsibilities.

6.4.3.2 Developed countries act strategically to build new institutional rules

While developing countries have demonstrated a lack of unified negotiating strategy and common position on finance sources, as private finance became increasingly significant, developed countries demonstrated a more coherent effort to introduce various new institutional rules or norms that would add detail to the prior institutional openness put in place by the Convention. Their emphasis on highlighting the practical necessity of private finance and seeking to limit public finance to LDCs and unprofitable climate change adaptation, and framing public finance as leverage to facilitate greater sums of private finance, are all consistent with developed countries' drive to maintain control over how

much finance they contribute and on what timelines. The institutional structures that had built up over the preceding two decades gave developed countries a strong position from which to reinforce their advantage.

There is plentiful evidence of developed countries calling explicitly for private or multiple sources of finance. For example, at the informal ADP meeting (the negotiating track for COP-21) before COP-18 in 2012, the EU supported holding a high-level forum to work on issues such as private-sector financing after 'underscoring that parties are not likely to step up existing targets and pledges this year' (ENB-550), thereby reinforcing donor control. Then at COP-18, 'the EU observed that it was important to recognize that no single source can address the aims of climate finance' (ENB-560). In both instances, developed countries used language of a more technical nature to distance themselves from normative debates about obligations and the range of appropriate sources used to mobilise finance that might erode their control. At COP-19, 'Canada said public finance alone will not suffice to address the needs of the poorest' and 'Japan and the US underscored the need to incentivize both public and private investment' (ENB-587). 'Numerous developed countries, including Canada, the EU, Japan, Norway and New Zealand, highlighted mobilizing private finance' and New Zealand even went as far as to suggest a UNFCCC mechanism for 'ensuring that public finance does not "crowd out" private sector engagement' (ENB-592). At COP-20, 'Norway, Switzerland, Canada and the US suggested highlighting a variety of sources' (ENB-611), 'Japan said parties who provide and receive support should work together to mobilize private finance' (ENB-612), and 'Australia called for recognizing support to developing countries from various sources' (ENB-614). At ADP 2-8 (before COP-21), 'the EU highlighted progress made, including on finance, indicating that the US$100 billion mobilization includes multiple sources' (ENB-625), and at ADP 2-10 (before COP-21), 'several developed countries underlined the need for more countries to mobilize finance and for mobilizing finance from all sources' (ENB-641).

Developed countries also pushed for the use of public finance to leverage private finance, again highlighting a more technical focus on increasing overall levels of finance, downplaying issues of justice in how much finance should be provided by developed countries in response to the ethical obligations that developing countries highlight. At COP-19, for example, 'Todd Stern, US Special Envoy for Climate Change, highlighted collaboration among donor countries to strengthen public finance as a means to leverage private investment'. He was supported by the World Bank, an organisation that has concerned developing countries for decades, which 'underscored its progress in tracking climate finance' in the context of 'the importance of understanding how public finance is leveraging private finance' (ENB-592). At ADP 2-4 (before COP-20), Australia highlighted

the importance of 'leveraging private finance' (ENB-595). At ADP 2-6 (before COP-20), 'the US stressed the need to: use public finance to mobilize private investment' (ENB-602) and at COP-20, 'Luxembourg emphasized that public finance at the national and local levels has a vital role to play in mobilizing private investment' (ENB-616).

Developed countries also continued to build a coalition of support for institutionalising a distinction between the uses of private and public climate finance, building on the Convention's lack of specificity. A division between public finance for adaptation and LDCs, and private finance for all other purposes and developing countries, would be likely to limit developed countries' obligations, and tied into the broader trend of seeking to break down the distinction between developed and developing countries in policy areas including mitigation as well as finance (Okereke and Coventry 2016). At COP-19, the US identified 'public finance as key for the LDCs, and highlighting the role of private finance in middle- and high-income economies' (ENB-587) and 'Norway underlined the need for public finance for adaptation' (ENB-587), while at ADP 2-6 (before COP-20), 'Australia emphasized using public finance to support those unable to attract private finance' (ENB-602). This distinction puts public finance in a more technical light, implying it is necessary to bolster or top-up beyond the limitations of profit-driven financing, and down-playing the justice roots of public finance that developing countries have been so concerned to recognise. Although references in the ENB record are relatively few, the distinction entered policy in decision 3/CP.19 on long-term climate finance, which 'calls on developed country Parties to channel a substantial share of public climate funds to adaptation activities' (paragraph 8), and was reinforced with identical phrasing in decisions 5/CP.20 and 5/CP.21, both also addressing long-term climate finance. In addition, Article 9 of the Paris Agreement includes a clause stating that 'The provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation...considering the need for public and grant-based resources for adaptation' (paragraph 4).

In addition to the references in policy to the different roles of public and private finance, openness to a variety of sources continued to prevail within policy. Decisions 2/CP.17, 1/CP.18, 4/CP.18 and 3/CP.19 all reiterate existing policy regarding a variety of public, private and innovative sources being acceptable routes to fulfilling the US$100bn annual commitment from Copenhagen and Cancún. Furthermore, decisions concerning funding for the GCF, which was being operationalised after COP-16, also adopted and reinforced the same openness to multiples sources; decisions 6/CP.18, 4/CP.19, 7/CP.20, 7/CP.21 all invited resources from public, private and alternative sources, in addition to developed countries themselves, as part of this operationalisation process, placing the GCF firmly into the existing structures that ensured little institutional distinction between

different sources. With developing countries presenting various different positions on finance sources, it is perhaps not surprising that the various angles pursued by developed countries are the ones represented in the final layers of policy output, reinforcing the institutional structure that contributed to developed countries' control over the sources of climate finance.

The draft agreement contained in the Lima Call for Climate Action in 2014 (decision 1/CP.20) and its progression to the Paris Agreement are particularly revealing of the coalitions of actors seeking to create institutional rules. The draft paragraph 53 on sources of finance included two options, the first of which required 'primarily public sources, with supplementary funding to be drawn from private / alternative sources', 'stressing that public sources are the main source of finance' and adding that 'developed country Parties shall incentivize the private sector to provide funding'. The second option accepted 'a wide variety of sources, including public, private and alternative sources, recognizing the need for a diversity of sources and instruments', as well as 'different types of financing for different activities and public sources for specific areas, given the limited potential for private investment, in particular in the most vulnerable countries and LDCs'. These two options clearly show the different positions taken by developing and developed countries, respectively. In the final Paris Agreement agreed the following year, the clarity of either draft option is lost and instead paragraph 54 of the implementing decision 1/CP.21 simply encourages support from 'public and private, bilateral and multilateral sources, such as the Green Climate Fund, and alternative sources in accordance with relevant decisions by the Conference of the Parties'. Whilst clearly losing the emphasis on public sources, the final text suggests that ultimately in Paris coalitions of both developed and developing countries were constrained by the existing institutional rules and that it was simply too great a stretch from the status quo for either proposal to survive intact through the broader negotiation process.

6.5 Conclusion

Additionality and sources of finance are two of the most prominent manifestations in the policy process of developing countries' normative or justice-based perspectives on the need for climate finance and how it should be provided. Both themes concern ensuring that climate finance provided by developed countries will actually represent fulfilment of moral obligations to provide compensation for climate harms, on one hand by ensuring the finance is not taken from other, existing flows of North-South development assistance, and on the other hand by ensuring that developed countries themselves provide the finance rather than claiming recognition for finance provided by private investors. Additionality in

particular was a concern already present in the broader development assistance system, where the complexity of finance flows and institutions makes accurate tracking of finance and avoiding double counting difficult. With climate finance, these problems were exacerbated by the challenge of drawing distinct lines between responses to climate change and development projects in areas such as infrastructure and agriculture. This challenge highlights the importance of a clear definition of climate finance, on which to base institutional rules facilitating accurate separation of climate finance from ODA and acceptable ratios of public and private finance.

Despite existing knowledge of these accounting and definition issues, and developing countries' strong push to ensure that additionality would be built into the UNFCCC, the Convention placed climate finance firmly within the norms and standards of the broader ODA system, bringing no definition of climate finance, no baseline or framework for accounting, and no restriction on the sources for obtaining climate finance. Vague references to "new and additional" were insufficient to institutionalise explicit expectations about how climate finance in the UNFCCC regime would function. As a result, the initial institutional design left developed countries, as climate finance donors, with the implicit control over additionality and sources and gave developing countries no real footing within the institutional structure to introduce stronger rules or clearer principles to underpin developed countries' actions. Early layers of policy largely reinforced the framework for the finance system set out in the Convention, with developed countries exploiting the openness of the institutional rules to include as many finance flows as possible when calculating "fulfilment" of their pledges and successfully shaping policy reinforcing the Convention's acceptance of multiple sources. The "mobilisation" term introduced in the Convention was increasingly used as a catch-all for funding, which obscured the normative obligation for providing climate finance that has been central to developing countries' perspective.

Developing countries became increasingly trapped in a complex negotiating puzzle where they wanted to maximise climate finance by encouraging private and innovative sources, but at the same time wanted to ensure that developed countries meet their obligations for providing compensation for climate harms, or at the very least fulfilled the commitments they made within policy. With Southern positions mixed, developed countries were able to capitalise on the openness to multiple sources that was by now firmly established as an institutional structure, pushing climate finance further towards a technical question and away from one of justice as they focused on what sources and instruments will be "necessary" to mobilise finance, and shifting expectations so public finance is linked only to situations or countries where private finance is less available.

Developing countries argued continuously for new and additional finance throughout all rounds of negotiation, but were unable to overcome the strength of institutional structures that left donor countries with control over accounting and definitions. Building on these enduring advantages gained from the institutional design and subsequent layers of policy, developed countries capitalised on the emergence of the voluntary NDC system to secure a finance regime in the Paris Agreement that left out the previously standard "new and additional" phrase, let alone introduced any definition of climate finance or standardised accounting procedures, which will likely lead to further disagreement as Parties negotiate the modalities for climate finance (Sharma 2017). Both additionality and finance sources policy demonstrate highly consistent output from the UNFCCC, and show how the institutional structures initiated in the Convention have contributed to a lack of legitimacy associated with normative input to the policy process and given developed countries a strong basis from which to control how they sourced and calculated climate finance. Despite consistent attempts to gather coalitions of sufficient strength to overcome these structures, developing countries never succeeded in adding clarity of expectations in terms of either the spirit or letter of institutional rules governing additionality or sources, and as a result these institutional structures can be said to have strongly favoured the interests and priorities of developed countries and constrained policy making accordingly.

7. Foundation and development of the financial mechanism

7.1 Introduction

With finance such a central component of the international response to climate change, the governance of the funds and organisations used to facilitate and oversee transfer of climate finance are key functions of the UNFCCC. These arrangements are known as the financial mechanism, and its design and evolution has been central to how climate finance policy has been developed and implemented. While components of the financial mechanism such as the GEF and GCF have been mentioned in the previous two analysis chapters, this chapter is, firstly, concerned with how the financial mechanism was initiated and selection of the GEF, an external organisation, as the initial operating entity. The origins of the GEF and its involvement in the financial mechanism set the stage for ongoing North-South controversy, which has continued through the life of the UNFCCC with developing countries calling consistently for direct access to funding, greater influence over the funds' operations and better oversight by the COP (Huq 2011). This chapter will seek to establish the role of institutional influence and potential path dependence in the longevity and prominence of the GEF within the financial mechanism, prompting analysis of how the institutional connection was initiated in the Convention and reinforced in subsequent layers of policy.

A central part of this historical analysis is investigating the impact that policy sustaining the UNFCCC-GEF connection has had on subsequent governance relationships between the UNFCCC COP and the other organisations and funds that have been created as the financial mechanism developed. Scholars have argued that the operational procedures of the SCCF and LDC Fund, under GEF management, have been dominated by influences beyond developing countries and their priorities (Mace 2005). In contrast, the Adaptation Fund, operationalised slightly later, had a noticeably different governance structure and has been praised as a model for UNFCCC funds (Horstmann and Abeysinghe 2011, p. 416). These outcomes prompt examination of institutional influence and whether operationalisation of the Adaptation Fund can shed light on the existence and strength of path dependence influencing fund creation, the appearance of a critical juncture or other mechanisms of institutional change, and the ability of coalitions of actors to overcome institutional constraints in particular circumstances. Latterly, the GCF was created to become the most significant entity in the financial mechanism, and it featured a governance structure similar to the Adaptation Fund. However, scholars have documented North-South

struggles in the GCF's operationalisation process (Bracking 2015, Vanderheiden 2015). Accordingly, this chapter will examine the how the Adaptation Fund's design affected subsequent strategies by coalitions of actors and how the GCF's creation was influenced by both the earlier legacy of the GEF and later introduction of the Adaptation Fund.

7.2 The Convention and initial selection of the GEF

The GEF was created in 1989 by developed countries, following a suggestion by the Prime Minister of France at a meeting of the World Bank and IMF to create a voluntary fund dedicated to the environment. From the beginning a decidedly donor-led project, developed countries were supportive of the fund's creation in advance of the 1992 Rio Conference on Environment and Development (UNCED) in order to pre-empt other funding proposals that may emerge (Boisson de Chazournes 2005, p. 193). The prospect of deciding on institutional arrangements for finance as part of the three conventions to be agreed at the UN Conference on Environment and Development (UNCED) in 1992 led developed countries, developing countries and the GEF itself to position themselves in advance of the Rio conference. In early climate change conferences such as Noordwijk in 1989, developed countries showed early momentum towards using an existing financial institution for climate finance, a position that developed countries would maintain but which would become increasingly at odds with the perspectives of the South (Bodansky 1993, p. 468).

Many developed countries were unwilling to entrust their financial contributions to a new and unknown "green fund" that would potentially be under greater control by developing countries (Bodansky 1993, p. 538). Although the GEF was still in a pilot phase, developed countries chose to stand firmly behind it as the entity that should be designated as operator of the financial mechanism and sought to reinforce the "reality" of its broader international role and the importance of ensuring its success (Rahman and Roncerel 1994, p. 260). There is evidence that the US government's internal plan was for the GEF to be selected as the sole channel for funds under the UNFCCC and that while its governance should be made more representative, control over funding decisions should remain with the World Bank (Goldemberg 1994, p. 181).

In contrast, developing countries called repeatedly for creation of a new and independent "green fund" that would include separate funds for each of the UNCED conventions and avoid the inequities and donor-dominated governance associated with the World Bank and other Bretton Woods organisations, while ensuring oversight from and accountability to the COP (Hyder 1994, Sjöberg 1999). Throughout the negotiations leading to UNCED, Southern governments sought consistently to prevent identification of a specific institution, with NGOs expressing their belief that the North would 'use the GEF as a new

strategic device to shift responsibility for past and present damage to the climate system onto the Southern countries' (Rahman and Roncerel 1994, p. 260). The GEF appeared to many in the South as a tactic to prevent the creation of a new "green fund" and broader democratisation of the global economy and international financial institutions; responding to the prospect of GEF selection, developing countries argued for far-reaching changes that would make it more like the "green fund" that they championed simultaneously (Sjöberg 1999).

The World Bank and GEF, meanwhile, both had a change of leadership in 1991, which led to realisation within the institution's leadership that its longevity required connections with the UNCED process and, in turn, sensitivity to the need for changes in its operations in order to facilitate these connections. The GEF positioned itself to be ready and able to become the preferred mechanism for the UNCED connections, with the administration making clear its openness to reforms and extending its mandate to cover desertification, in an effort to respond to developing country demands (Sjöberg 1999). Donor countries agreed to greater transparency and more equitable representation in order to ensure the GEF would be in a favourable position in advance of the UNCED conference (Jordan 1995), but, crucially, 'the fact that the GEF was to be based on voluntary contributions and was being established at that time without any legal link or obligation to the Convention, gave donor countries the upper hand in the final decision' (Gomez-Echeverri and Müller 2009, p. 2).

Within the negotiating process, donor countries refused to accept a new arrangement specific to the UNFCCC and recipient countries refused to accept the GEF as a permanent solution, continuing to advocate a "green fund" even though it was clear that this had no viability (Dowdeswell and Kinley 1994, Sjöberg 1999). The issue was only solved in the final round of negotiations before the UNCED, with disagreement resolved by using the word "interim" to sidestep developing countries' concerns about the involvement of the World Bank and GEF (Gupta 2014, p. 60). The associated compromise entailed the COP controlling policies, programme priorities and eligibility criteria for funding, while the GEF would have more transparent governance and equitable representation with regular reporting to the COP (Dasgupta 1994). The strength of US emphasis on the GEF was so strong that this interim designation was one of the reasons behind an initial refusal by the US to sign the Convention (Brown Weiss 1992, p. 817). The final agreement of developing countries was also induced by the World Bank's idea to add additional "Earth increment" funding on top of its next replenishment process, accompanied by positive statements from developed countries about willingness to increase their contributions (ENB vol. 2, nos. 5 & 9). This package convinced developing countries that "new and additional" funds would be

forthcoming, but ultimately these elements were a vague part of the UNCED deal (Sjöberg 1999, p. 23) and subject to considerable subsequent influence within the UNFCCC policy process.

In the final Convention text, Article 11.1 states that the financial mechanism 'shall function under the guidance of and be accountable to the Conference of the Parties, which shall decide on its policies, programme priorities and eligibility criteria related to this Convention. Its operation shall be entrusted to one or more existing international entities.' The direct reference to use of an existing entity 'set an important precedent in entrusting the fundamental responsibility to an institution somewhat separate to the Convention' and outside the UN (Dowdeswell and Kinley 1994, p. 124), potentially indicating the origin of a path dependence. However, Article 11 provided no clarity on how the relationship between the COP and the GEF would be structured and how COP modalities and procedures would ensure that funded projects conform with COP guidance (Bodansky 1993). This immediately opened up an important space within the policy process for ongoing North-South debates over oversight of the GEF and its operations; Bodansky (1993, p. 541) also notes that the US successfully opposed a proposal by AOSIS to include an explicit reference to funding adaptation costs in Article 11. This was in line with donor country preferences (and GEF policy) that the GEF should concentrate on funding projects with global benefits, i.e. mitigation, rather than the local or national benefits that principally result from adaptation projects, and is significant as the origin of a North-South struggle within the UNFCCC for adequate attention to adaptation funding that contributed to the later creation of the Marrakesh funds and the GCF.

Article 21.3 of the Convention designates the GEF as the interim operating entity of the financial mechanism and includes a direction that the GEF 'should be appropriately restructured and its membership made universal to enable it to fulfil the requirements of Article 11'. While this latter clause can be seen as a response to G77 pressure (Hyder 1994, p. 216), the Convention offers no clarity or direction on what the reforms will entail or what must be achieved to constitute "appropriate" reform. The Agenda 21 document, a non-binding framework for sustainable development also agreed at the UNCED, provides some additional detail but this is limited to ensuring predictable, new and additional resources and broadening the scope of the GEF, rather than specific measures or requirements (UNCED 1992). Once again, this ambiguity in the Convention played a role in securing agreement at UNCED but left the final institutional design unclear and did not provide a robust means to ensure the COP could actually ensure the GEF would be reformed to any significant extent or in line with developing country priorities. Overall, the Convention facilitated the inclusion of the GEF in the financial mechanism, a key priority for developed

countries, and important policy features concerning the linkage between the GEF and the UNFCCC, the manner of COP oversight and the practical details of GEF operations were left open to the influence of further North-South negotiation in the policy process.

7.3 Establishing the institutional relationship between the COP and the GEF

After the UNCED was concluded, the arrangements to operationalise the financial mechanism and the institutional linkages between the COP and GEF had to be agreed (Jordan 1994a). A central part of this process was the reform of the GEF specified in the Convention, which should 'guarantee implementation of the obligations contracted by the industrialised nations' and was seen as vital to realising the principle of common but differentiated responsibility underpinning the Convention (Djoghlaf 1994, p. 109). The need for these reforms immediately exposed the challenges of connecting the GEF to the UNFCCC; while it was 'crucial that the GEF restructure itself to meet the political requirements of the Convention' and there was a need to ensure 'the expected replenishment of the GEF takes the Convention fully into account' (Dowdeswell and Kinley 1994, p. 125), there was no clear mechanism to bring the authority of the COP to bear on the external entity.

Building on the changes to the GEF already agreed in preparation for the UNCED, the reform process presented an opportunity for the North to demonstrate a willingness to engage with global problems in a more equitable manner than it had done previously (Jordan 1995). There had been criticism from numerous directions about the performance of the GEF and that it was linked too closely to the World Bank and inheriting many of the Bank's administrative and bureaucratic failings (e.g. The Economist 1993; MacIlwain 1993). These criticisms had led to calls for greater independence both externally and as an outcome of internal reviews (The Economist 1993b, Fairman 1994), but significant reforms of this nature were hampered by the paradoxical nature of the GEF-World Bank relationship; securing World Bank backing for projects was important for retaining the vital support of donors, yet this simultaneously reduced the credibility of the GEF in the eyes of recipient countries and NGOs and fostered North-South distrust (Jordan 1995, p. 307).

However, the same North-South issues present in the UNCED were carried over into the GEF reform process, with the North retaining its focus on efficiency and cost-effectiveness of funding and projects and the South highlighting participation and governance changes to build legitimacy (Sjöberg 1999, p. 23). Developed countries originally favoured a "one-dollar-one-vote" arrangement along the lines of Bretton Woods financial institutions (in which donors dominate) for the GEF Council, while developing countries

sought a "one-country-one-vote" system more like the UN General Assembly (MacIlwain 1993, p. 199). These positions evolved as developed countries proposed various options for the Council's representation and voting, while the G77 'insisted on holding a majority within the Council that better reflected its constituency of over 130 countries and on the right to elect its own Chair' (ENB vol. 5, no. 13). The final structure featured 16 seats for recipient countries and 16 seats for donor countries and "economies in transition", but with a "double-weighted majority" constituting both 60% of Council members and donors representing 60% of contributions required to pass motions (Van Praag 1994, p. 1274).

The reforms gave developing countries an effective veto over Council decisions, but in practice the Council makes decisions by consensus on the recommendation of the Chair, so this veto power goes unused (Young and Boehmer-Christiansen 1997, p. 196, Müller 2007, p. 5); the balance of power in the Council remains in favour of developed countries, who 'underline their demands for influence with policy recommendations linked to the replenishment procedure' (Streck 2001, p. 84). The GEF's CEO is also Chair of the Council, a significant victory for developed countries during the restructuring (Horta et al. 2002). Some have argued that the restructuring process made the GEF more independent from the World Bank (Streck 2001, p. 80) and the fee for membership was removed in December 1992, leading to a rise in developing country members (Jordan 1994b, p. 19). Despite this, concerns remained over ongoing influence of the World Bank, as well as the participation of recipient stakeholders in policy decisions, defining the "incremental costs" and "global benefits" underpinning the GEF's remit, the discretion held by the CEO for operating the GEF in relationship with the Convention's COP, and the complexity of the GEF project approval cycle (Jordan 1994b, 1994a, Young and Boehmer-Christiansen 1997, Streck 2001).

Developed and developing countries exhibited very different perspectives on the attempts at GEF reform once the UNFCCC meetings began in 1995. For example, 'the EU, the US, Australia, Canada, Japan and Poland supported designating the GEF as the permanent entity entrusted with the operation of the financial mechanism' (ENB-2), and the Netherlands and Norway said that 'the restructured GEF is now in conformity with the conditions in Article 21.3 and should permanently operate the financial mechanism' (ENB-3). In contrast, 'the G-77, Peru, China and Benin commented that progress had been made during the GEF restructuring, but the GEF needs further modification in its representation' (ENB-2) and 'the Philippines and Peru did not believe that the GEF has been adequately restructured, especially with regard to universality of participation' (ENB-3). Developed countries including Australia, Canada, France, Japan, the Netherlands and the US exerted pressure for the GEF to be confirmed as the permanent operating entity of the financial mechanism without delay at INC-11 (before COP-1) and COP-1 (ENB-3 & 4), a strategy that

would minimise the discussion and reinforce the institutional design that developed countries had secured with the selection of the GEF in the Convention. Developing countries pushed back, though, with Mauritius reiterating that 'restructuring was a precondition for the GEF to be the interim, not the permanent, operating agency' (ENB-3). At COP-1, the interim arrangements with the GEF were re-confirmed, with reference to the "restructured" GEF (decision 9/CP.1) but little in the way of detail about what changes or improvements were considered necessary by the COP and thus little to alter the advantage developed countries gained from connection between the UNFCCC and an external institution they designed.

Developing countries also sought to highlight the need to ensure effective UNFCCC oversight of the GEF; for example, at INC-11 (before COP-1), 'Uganda and Malaysia felt that the relationship between the GEF Council and the COP requires further work and evaluation' (ENB-3), and at COP-2, Ghana 'noted that the GEF's actions depend on decisions of the COP and not the reverse' (ENB-38). At COP-1, initial arrangements for oversight of the financial mechanism by the COP were articulated in policy, focusing on the COP providing guidance to the operating entity, with an expectation that the operating entity's governing body 'shall accordingly ensure conformity of entity's work with COP guidance' (FCCC/CP/1995/7/Add.1, section III, paragraph 2), along with an obligation for the governing body to report back to the COP on conformity of its operations with this guidance (paragraph 3). This set the pattern for the relationship of the COP with the GEF over subsequent years and rounds of policy, with expectations of COP oversight but little detail on institutional mechanisms or procedures to ensure the COP could enforce its decisions and intentions on the GEF and its governing Council.

The initial governance structure for the financial mechanism was formalised in a memorandum of understanding (MOU) between the COP and the GEF Council, agreed at COP-2 in 1996, which established the operational basis for the institutional relationship. Clause 2 states that 'COP will, pursuant to Article 11.1, decide on policies, programme priorities and eligibility criteria related to the Convention for the financial mechanism which shall function under the guidance of and be accountable to the COP', re-using language taken from Article 11.1 of the Convention. The MOU further stipulates that the COP will provide guidance to the GEF Council after each session (clause 3), and 'the Council will ensure the effective operation of the GEF as a source of funding activities for the purposes of the Convention in conformity with the guidance of the COP' (clause 4). There are further clauses specifying the duty of the COP to monitor the performance of the GEF and conduct regular reviews, and requiring regular reporting to the COP from the GEF Council on its operations and performance to facilitate this monitoring. These initial

policies seemed to reflect developing countries' desire to see strong COP oversight of the GEF, but actually reinforced the policy path started at COP-1 and its associated advantages for developed countries, by doing little to imbue the COP with strength to control the GEF since they did not set out in detail how the COP will assess GEF compliance with its guidance and sanction the GEF if its performance or compliance is deemed inadequate.

7.4 Confirmation of the GEF as operating entity of the financial mechanism

While the MOU between the GEF and COP was agreed at COP-2, final confirmation of the GEF as permanent operating entity of the financial mechanism was only agreed at COP-4. The SBI was tasked with reviewing the GEF, but at COP-3, 'Australia, the US, Canada, Japan and the UK noted the success of the GEF', and the UK stated that it was 'committed to the GEF, prepared to make substantial contributions and called on other donors to do likewise' (both ENB-48). In the context of selecting a permanent financial mechanism, developed countries backing the GEF in this manner suggests that they were tying future contributions to agreement by recipient countries that the GEF should permanently operate the financial mechanism. This implied threat reflects a strategy to exert power in the broader context of the voluntary paradigm examined in Chapter 5, in order to reinforce the policy path that kept the GEF at the centre of the financial mechanism. Developed countries continued to seek conclusion of the reform process: at COP-3, 'the US said GEF had made an effort to meet the needs of FCCC Parties and expressed disappointment at the fact that the review of the financial mechanism had not concluded' (ENB-70), and at COP-4, 'several developed country Parties suggested that GEF should operate as the Convention's financial entity, although improvements are needed' (ENB-90).

In contrast to developed countries' approval of the GEF, developing countries voiced complaints about its performance and their interaction with the organisation and its implementing agencies. At COP-2 in 1996, 'Tunisia reported delays in GEF funding approval' (ENB-38), at SBI-5 (before COP-3), 'Burkina Faso and Algeria stressed that procedures to deal with the GEF can be very cumbersome' (ENB-40), and at COP-3, 'the Philippines mentioned experiencing problems with implementing agencies and said that they should be more aware of decisions taken by the GEF Council' (ENB-70). At SBI-8 (before COP-4), the G77/China, with Egypt, called for 'attention to adaptation measures' and China called for 'a more streamlined project approval process' and 'transparency in incremental cost calculations' (ENB-80). Developing countries faced an uphill struggle to have these concerns recognised and acted upon, since the GEF already existed and its governance was dominated by donor countries; within the COP developing countries argued that they were

‘not getting the necessary cooperation on improvement and functioning of the operating entity on an interim basis’ (ENB-86), and without this co-operation their ability to influence the governance of the GEF was limited.

At COP-4 in 1998, ‘several developing country Parties suggested a political reorientation of the GEF to meet their needs’ (ENB-90). Developing countries’ focus on their experience and needs reflects their overall priorities for climate finance policy more generally (see Chapter 5), and is evidence that developing countries were already pushing against the policy path initiated by the prior selection of the GEF. Some developing countries even went as far as advocating alternatives to the GEF; for example, at COP-4, ‘recognizing that the lack of multilateral financing constitutes a major obstacle to implementing the Convention and noting the slow and complex process to access GEF funds, Djibouti supported the establishment of an independent financial mechanism to finance the CDM for poor countries’ (ENB-96). These attempts to gather a coalition of actors of sufficient political strength within the policy process to reshape the UNFCCC’s policies and institutions illustrates the key underlying debate: should the governance and design of the financial mechanism be geared around donor requirement or recipients’ needs? This North-South dynamic is captured in an exchange at COP-4, when the US tabled a draft decision on improving the GEF and resolving its status, and the G-77/China responded by saying that ‘this proposal did not adequately meet the needs of developing country Parties’ (ENB-92).

Despite the criticism and concerns voiced by developing countries, the GEF was confirmed as the permanent operating entity of the financial mechanism at COP-4, with decision 3/CP.4 stating that the COP ‘decides that the restructured Global Environment Facility shall be an entity entrusted with the operation of the financial mechanism’. Progression of the negotiations shows that the interim selection of the GEF, development of institutional links with the UNFCCC, and the GEF’s subsequent confirmation derailed the attempt by developing countries to base the financial mechanism on an entirely new funding body. This component of the UNFCCC’s initial institutional design does appear to have created a policy path putting the GEF, with its donor-dominated governance and operations, at the heart of the UNFCCC financial mechanism. Developed countries were able to negotiate from a position of preserving the prominence of the GEF and the advantages they gained from greater influence over its governance, while developing countries had to seek institutional change and were consequently hindered within negotiations. After confirmation of the GEF as a permanent operating entity of the financial mechanism, developing countries remained vocal in their criticism of the GEF but reduced calls to replace it and instead increased their push to reshape the financial mechanism to meet their needs more effectively.

7.5 Creation of new funds after the GEF is selected

Confirming the GEF as the permanent operating entity of the financial mechanism preserved the advantages that developed countries experienced from their greater control over the organisation's governance and agenda, and ensured that the UNFCCC financial mechanism reflected the broader development funding system, with its established North-South or donor-recipient power dynamics (Ervine 2007). With developing countries having been unable to gather a coalition of sufficient strength to alter this path, attitudes to the financial mechanism remained characterised by a North-South or donor-recipient split, reflecting the broader landscape of and attitudes to development funding. Although the GEF was now permanent operating entity of the financial mechanism, developing countries exhibited several viewpoints in their criticism of the GEF. It could be construed that developing countries were seeking once again to gather a coalition of sufficient strength to overturn the established policy path, but the wide range of complaints also suggests a lack of co-ordination that could limit the strength of a coalition of actors and the legitimacy of their claims in the face of established institutional configurations and rules (Vatn 2015).

7.5.1 Emerging themes of Southern criticism of the GEF

The first perspective pursued by developing countries was ongoing criticism borne of their interaction with the GEF and its implementing agencies. At SBI-10 in 1999 (before COP-5), the G77/China 'said the GEF did not provide adequate funding' (ENB-101) and Barbados 'pointed to difficulties in obtaining financial assistance' from the GEF (ENB-105). At COP-5, 'concern over perceived shortcomings of the GEF in delivering on its role as an operating entity of the FCCC's financial mechanism' was prevalent, and 'a number of participants criticized the rigid eligibility criteria by which the GEF interprets and weights proposals submitted by countries as unrealistic, and said these criteria can delay the process of implementing national actions' (ENB-116). At SBI-13 (before COP-6), Kenya commented 'on the difficulties in dealing with the [GEF's] implementing agencies' (ENB-148).

The second element was a drive to expand the remit of the financial mechanism, both in terms of the scope of activities funded, particularly adaptation, and the number or type of funds, which stemmed from discussions over the adverse effects of climate change and led developing countries to push for more funding for adaptation and needs assessments. At SBI-13 (before COP-6), 'the G-77/China highlighted that the text should reflect the importance of creating a fund to support' developing countries compiling information on their adverse effects actions and vulnerabilities (ENB-144). At COP-6, Nigeria 'urged provision of funding through a mechanism other than the GEF' (ENB-153) and adverse effects discussions centred 'on the proposed adaptation fund and the fund

supporting specific concerns of LDCs' (ENB-156), with Climate Network Africa emphasising 'the importance of a concrete adaptation fund' (ENB-159), and Guatemala supporting 'the prompt establishment of an adaptation fund' (ENB-161). In contrast, developed countries sought to reinforce the role of the GEF: 'Japan, supported by the US, recalled that the GEF was the vehicle for this funding' and 'the EU cautioned against creating a separate disaster fund for climate-related events' (ENB-144). At COP-6, the 'G-77/China, Africa Group and Samoa, opposed by US, Canada, Japan, Australia, urged the establishment of an adaptation fund based on a levy applied to all three' flexible mechanisms in the Kyoto Protocol (ENB-160).

The third element was the drive to improve developing countries' access to climate finance within the UNFCCC. Many developing countries have complained about the difficulties involved in gaining access to funding from the GEF (Huq 2002, p. 245), with the issue first appearing explicitly in the ENB record with a reference by Djibouti at COP-4 in 1998 (ENB-96). Access was a particularly important issue for LDCs; for example, at COP-6, 'Vanuatu advocated for a fund for LDCs that do not have ready access to GEF funds' (ENB-160). The subject was first reflected in policy at COP-7, where decision 6/CP.7 invites the GEF to continue efforts to minimise the time between project approval and dispersal of funds by its implementing agencies, 'urge its implementing/executing agencies to be more responsive to requests for GEF assistance from developing country Parties' and 'give consideration to measures to increase opportunities available to developing country Parties for accessing GEF funds for climate change activities' (paragraph 2). Gaining traction over subsequent COPs, access became a key feature in the operationalisation of the Adaptation Fund.

These three themes sit alongside the ongoing drive by developing countries to ensure effective oversight of the GEF by the COP, and the COP's functional authority over the GEF that would reassure developing countries that they had an institutional means to influence the financial mechanism. For example, at COP-5 in 1999, while some felt that problems with the GEF 'arise from inadequate guidance given to the GEF by the COP, others attributed them to difficulties in co-ordinating the interests and mandates of two intergovernmental bodies' (ENB-116). At COP-6, the GEF's performance in serving the COP also provoked criticism. The G-77/China suggested that the GEF had exceeded its mandate as its new Capacity Development Initiative had not sought guidance from the COP and was yet another solution "imposed" on developing countries' (ENB-151). While the GEF confirmed on more than one occasion (e.g. ENB-148, 159, 163 & 185) that it would implement and follow guidance it receives from the COP, it was not simply a case of the GEF disobeying or failing to integrate COP guidance. For example, at SBI-13, 'on questions about whether the GEF might reconsider its current focus on mitigation', the GEF Chair 'noted the limited guidance

provided by the COP on adaptation activities' (ENB-148). Even with more effective governance and authority, guidance to the GEF would still be subject to the rigours of the UNFCCC policy process.

7.5.2 Creation of the Special Climate Change Fund, LDC Fund and Adaptation Fund

Developed countries' responses to criticism of the GEF and the ability of the COP to oversee it were concentrated on improvement of the GEF, evidence of their continuing attempts to reinforce the advantageous policy path initiated in the Convention. For example, at COP-6, Denmark 'called on the GEF to be more responsive to LDCs' needs' and, 'noting the need to reform the GEF, Canada called for the creation of a "window" within the GEF to deal with special climate change issues such as adaptation.' In addition, 'the UK recognized the value of an Adaptation Fund' but also 'expressed a preference for an improved and enhanced GEF with a 50% increase in contributions' (all ENB-160), again tying the prospect of increased funding to an ongoing focus on the GEF rather than a new fund more directly under the authority of the COP. A funding proposal from the EU focused 'on the need to improve and increase funding for the GEF, especially taking into consideration the needs of least developed countries (LDCs), and suggests an "adaptation fund plus" within the existing GEF structure' (ENB-162). Annex I Parties 'preferred building on existing institutions, with a focus on the GEF. These delegates stressed that any new institutions must add value and not duplicate the GEF's work or mandate' (ENB-169).

Many of these statements suggest that an increase in adaptation funding had, in principle, been accepted by many developed countries. Rather than a specific success for developing countries achieving institutional change, this is likely to stem from two factors. Firstly, the GEF had been restricted, according to donor preferences for "global benefits", to a focus on mitigation (Rübbelke 2011, p. 1473). Secondly, adaptation was gaining more significant attention, both in terms of scientific and economic research, and input to the policy process from Parties, NGOs and others (Schipper 2006). The increasing prominence of adaption in the UNFCCC was reflected by introduction of the National Adaptation Plans of Action (NAPA) process and Nairobi Work Programme on impacts, vulnerability and adaptation, both in 2001 (Persson 2011, pp. 5–6). With momentum building towards understanding the need for adaptation within broader climate change efforts but the GEF constrained in its ability to fund this area, new funds were a more viable option than previous donor focus on the GEF might suggest.

Proposals for new funds gained traction at COP-6 at The Hague, which ended without agreement overall. However, the draft carryover text included reference to agreement on creating 'a new fund under the GEF' for adaptation and 'a new window under the GEF'

for activities including capacity building and technology transfer (decision 1/CP.6, Annex, Box A). Momentum continued to grow at a second meeting held to continue COP-6 the following year (COP-6.bis), where there was general support for the two proposed funds (ENB-171), but the role of the GEF and differentiation between its remit and that of the new funds remained open to further debate (ENB-171 & 174). Relatively little is present in the ENB record concerning the involvement of the GEF in operating the SCCF and LDC Fund, but Boyd and Schipper (2002, p. 188) report that at COP-7, developed countries argued for the LDC Fund to be under GEF control, while developing countries preferred that it should be managed by the UNEP. Similarly, developing countries didn't want the GEF to operate the SCCF as a result of their many longstanding complaints about its performance and governance (Dessai 2003, p. 297). Mace (2005, p. 232) notes that 'the creation of the SCCF and the LDC Fund responded to developing countries' mounting frustration with the GEF, which included the difficulty of accessing GEF funding, the GEF's slow disbursement process and the problematic concept of incremental costs in the context of adaptation'.

Eventually, negotiations at COP-7 resulted in three new funds: the SCCF, LDC Fund and Adaptation Fund. With their focus on activities beyond the GEF, particularly adaptation, and supporting 'a work programme for the least developed countries' (decision 7/CP.7), the funds may appear to constitute a success for developing countries' efforts to extend the remit of the financial mechanism to cover more of the areas of greatest priority to them. However, developing countries' concerns regarding the role of the GEF were not reflected in the policy that created the funds, and instead similar language to previous COP decisions was used; decision 7/CP.7 stated that both the SCCF (clause 3) and LDC Fund (clause 6) 'shall be operated by an entity entrusted with the operation of the financial mechanism, under the guidance of the Conference of the Parties,' with an almost identical clause in decision 10/CP.7 for the Adaptation Fund. Although this provides a relatively clear implication of COP authority, the phrasing once again leaves the operation of the funds in the hands of the GEF Council and subject to the existing mechanisms for COP oversight of the GEF. In light of the earlier controversy regarding selection of the GEF, and developing countries' consistent frustrations with ineffective COP governance of the financial mechanism, repetition of the same oversight arrangements in creation of the three new funds in 2001 can be seen as reinforcing the institutional structure that reflected donor preferences for the GEF and limited the power of developing countries to influence the governance of climate finance flows within the UNFCCC.

7.6 Operationalisation of the SCCF and LDC Fund amidst further criticism of the GEF

In the years after COP-7, the LDC Fund and SCCF were the first to be operationalised, with the Adaptation Fund taking longer because this had to wait until the Kyoto Protocol had come into force. This process took place in the context of developing countries continuing to articulate their needs and priorities, and criticise the operation and oversight of the GEF. The creation of the SCCF and LDC Fund did not halt the calls for greater attention to adaptation funding that have been part of negotiations since they began. For example, at COP-8 in 2002, 'Kenya called for increased assistance for adaptation projects and the development of climate policies and strategies' (ENB-203) and at SBSTA-20 (before COP-10), Palau 'expressed concern that GEF encourages Parties to obtain funding for adaptation from [GEF funding] areas other than climate change' (ENB-234). Developed countries took a different perspective, for example when 'Canada commended the GEF on its adaptation strategy' (ENB-203). At SBI-17 (before COP-9), 'the EU, US and Canada highlighted progress made' on adaptation funding, 'including the GEF's third replenishment, the establishment of the LDC Fund, and development of guidelines for NAPAs', but 'the G-77/China, supported by Saudi Arabia, AOSIS, Kuwait and Libya, said that progress to date was insufficient' (ENB-214).

Finance recipients continued to raise concerns about access to funding. At COP-8 in 2002, 'Tuvalu noted difficulty in seeking funding for NAPAs from the GEF', and at SBI-18 (before COP-9), the G77/China and Ghana argued that small-scale projects should have expedited access to funding from the SCCF (ENB-216 & 217). At SBI-20 (before COP-10), 'ongoing frustrations with the UNFCCC's financial mechanism were expressed. For instance, developing countries articulated the difficulties in proving the "global benefit" of adaptation projects to access funds from the GEF' (ENB-242) and at COP-10, 'Micronesia emphasized SIDS' difficulties in accessing funds' (ENB-251). At COP-11 in 2006, the G-77/China expressed concern 'that co-financing requirements present a barrier to LDCs and SIDS accessing funds' and the introduction of the GEF's Resource Allocation Framework (RAF, a policy for allocating funding to projects) 'also drew criticism from some, 'who noted that the RAF would make it more difficult for developing countries to access funding' (ENB-282). At COP-12, 'Niue appealed for improved modalities to access the GEF' (ENB-317).

Developing countries were also vocal in this period about the lack of COP oversight and limitations in the guidance provided by the COP to the new funds. At COP-8 in 2002, the SBI Chair 'cautioned against possible inconsistencies between COP guidance to the GEF and GEF decisions on modalities' (ENB-203). At SBI-20 (before COP-10), 'AOSIS, with others, cautioned that the COP's role in providing guidance to the GEF is being "undermined" by

recent developments in the GEF Council' (ENB-234). At COP-10, Samoa urged that 'the COP, not the GEF, should determine eligibility criteria' and 'AOSIS underlined that the GEF must follow the guidance given by the COP' (ENB-251). Developed countries often expressed support for the GEF, such as at COP-12 when 'the EU, US and Switzerland said the GEF is performing effectively and welcomed its fourth replenishment' (ENB-309), but occasionally developed and developing countries spoke together, such as at COP-11, when 'the UK, Tuvalu and Canada noted that the COP gives direction to the GEF and not the reverse, and that the GEF's responsibility is to operationalize this direction' (ENB-265). However, such statements do not acknowledge the strong donor influence over the decisions and operations of the GEF, and thus how it operationalises COP guidance (Mace 2005).

7.6.1 Institutional constraints on operationalisation of the LDC Fund

Discussion about the priorities and procedures of the SCCF and LDC Fund began after COP-7, in the context of ongoing criticism of the GEF and oversight by the COP, and with numerous developing countries highlighting the urgency of the COP providing guidance to the GEF (e.g. ENB-205). Initial guidance for the LDC Fund was produced at COP-8 in 2002, and developed countries quickly resisted more detailed COP guidance: Canada, Norway, the EU and Switzerland, 'stressed the importance of a clear focus on NAPAs [National Adaptation Plans of Action] and policy level, rather than operational level, guidance to the GEF' (ENB-205). In contrast, Samoa stressed language on 'the operational guidance from the COP' (ENB-206). Progress on operationalising the LDC Fund stalled at COP-10, where renegotiation of the terms of the LDC Fund meant 'that progress made at COP-9 on funding for adaptation is essentially negligible' (ENB-257). Consequently, 'LDCs – some of the most vulnerable to the impacts of climate change – failed for the second consecutive year to secure a decision for full-cost funding of adaptation through GEF' (ENB-260).

In the context of this challenging negotiating environment, developing countries also 'expressed concern that the LDC Fund will be inaccessible to most LDCs' (ENB-230). This stemmed partly from the GEF's focus on global benefits from funded projects, which meant that the GEF required developing countries to provide or obtain some funding input to cover the local benefits of adaptation projects, known as co-financing (Rübbelke 2011, p. 1478). 'The plea from LDCs, particularly the SIDS, lies precisely on this paradox, in that even if funds are available in the LDC Fund, their difficulty of finding adequate co-financing, and the costly and cumbersome calculation of the additional costs, renders the financial resources in the LDC Fund, in practice, almost inaccessible' (ENB-260). This paradox was directly caused by the earlier decision to place the LDC Fund under GEF management and the limited influence of developing countries over governing the GEF: the GEF explained at

COP-10 'that the proportion of co-financing [required the LDC Fund to approve a project] is due to the GEF requirement to fund only incremental costs' (ENB-251). LDCs and SIDS already 'lack the bargaining power of oil-producing countries and large greenhouse gas emitters' in negotiations (ENB-260) and had struggled to achieve their policy objectives in prior negotiation rounds. The institutional connection with the GEF exacerbated this power imbalance because it meant that LDCs would have to overcome not only their bargaining position but also the prevailing institutional structure, which gave advantages to developed countries in the form of influence over GEF and LDC Fund policy determining finance rules. Pierson (2004, p. 150) argues that complimentary institutions and interconnected policies place pressure on actors to adjust to the context. In this case, power imbalances and policy structures meant LDCs were constrained to the extent that they would have to 'present feasible proposals [for adaptation funding] that fit, however loosely, in the existing financial architecture' (ENB-260).

Guidance for the LDC Fund was adopted at COP-11 in 2005 (decision 3/CP.11), which addressed both co-financing and full-cost funding for adaptation. The GEF was instructed to 'develop a co-financing scale for supporting activities identified in national adaptation programmes of action, taking into account the circumstances of least developed countries' (paragraph 3). This had caused a degree of controversy in previous rounds of negotiation when developing countries objected to proposals put forward by the GEF (Mace 2005). Decision 3/CP.11 also decided 'that full-cost funding shall be provided by the Least Developed Countries Fund to meet the additional costs of activities to adapt to the adverse effects of climate change' identified in NAPAs (paragraph 2). While "additional costs" were defined in this context as costs imposed on vulnerable countries to meet their immediate adaptation needs, which had the potential to lead more readily to full funding than the GEF's broader procedures, the guidance offered no more detail and explicitly 'shall not set a precedent for other funding arrangements under the Convention', so the improvement in the terms for developing countries more broadly would likely be negligible. Thus the governance of the LDC Fund remained largely subject to existing institutional structures that left significant operational authority with the GEF. Conveying the extent to which developing countries were constrained by these structures, the LDCs 'noted that the final text was not LDCs' preferred outcome, but that they had compromised. He said it is now up to the GEF to operationalize the guidance in a way that truly responds to the need to implement' the national adaptation plans of action (ENB-269).

7.6.2 Institutional constraints on operationalisation of the SCCF

Despite agreement to the list of SCCF funding areas when the fund was created (decision 7/CP.7), negotiations over operational policy for the SCCF revealed significant resistance from donor countries to the breadth of these funding areas, while developing countries continued to prioritise adaptation. Very brief guidance was produced at COP-8 but broader disagreement led to negotiations continuing on to COP-9. North-South division was clear at SBI-18 (before COP-9): 'non-Annex I countries sought to ensure that adaptation activities would be prioritized under the SCCF. Annex I countries, meanwhile, demanded that the SCCF fund mitigation projects as well as adaptation activities' (ENB-219). Also at SBI-18, 'the G-77/China and others said the SCCF should finance activities currently not supported by existing funds, and, with Micronesia, Tanzania and Kenya, stressed the importance of prioritizing adaptation activities' (ENB-215) and 'Argentina, supported by the G-77/China and others, said that adaptation projects are of global benefit and should be given the highest priority under the SCCF', while 'Canada, with the EU, Norway and Japan, and opposed by the G-77/China, proposed that the SCCF support adaptation and mitigation activities' (both ENB-217).

Only limited guidance was agreed at COP-9, which led the GEF to convene side discussions with a small group of donor countries, who agreed that the SCCF should finance specific programmes and have distinct agreements with each donor that would allow them to specify which programmes their contributions could be channelled into. In November 2004 (before COP-10), developed countries pledged US$34 million to the SCCF, but this was made contingent on the guidance agreed by the group of donors being accepted by the GEF Council that managed the SCCF. This process demonstrates the extent of donor control over the GEF system, even when the funds themselves are new and purportedly responding to developing country concerns (Mace 2005). In addition to the guidance outlined above, the GEF Council adopted a sliding scale of financing for the SCCF, whereby larger projects would receive a smaller proportion of their funding from the SCCF. Developing countries articulated clearly their frustrations at the limited influence they had over how the COP governed the GEF: at COP-10, 'AOSIS, supported by the African Group, LDCs, Namibia, Cuba and Uganda, expressed concern over the interpretation of COP guidance' by the GEF, 'underlining that the most vulnerable countries face difficulty in accessing GEF funds due to the burden of co-financing requirements, the existence of additional criteria and indicators not adopted by the COP, and the narrow scope of adaptation projects eligible under the GEF' (ENB-251). In addition, the G-77/China 'reiterated concerns on the GEF adding conditionalities to access the SCCF' (ENB-252).

There was no decision concerning the SCCF at COP-11 due to continued lack of agreement about priority areas for the SCCF (ENB-285). At COP-12, decision 1/CP.12 noted 'the concerns expressed by most Parties not included in Annex I to the Convention with regard to the operational criteria and policies' of the SCCF, but it reinforced the fund's remit across various areas of mitigation, and did not make reference to the fund's original adaptation remit, which had been the key focus of developing countries. 'Delegates were surprised at the relative speed with which the SCCF issue was concluded' during COP-12 'and speculated that this might be linked to progress on the Adaptation Fund. Skeptics [sic], however, recalled the climate process is in the habit of collecting "empty funds"' (ENB-315), reference to developed countries' ongoing ability to obstruct new funds by simply refusing to actually contribute money to them. This outcome suggests that, as with the LDC Fund, existing institutional structures added to developed countries power, enabling them to further reinforce these structures and preserve the GEF's significant operational authority and donors' position as the most significant influence over the COP's governance of the financial mechanism.

7.7 Explaining the policy path change in Adaptation Fund governance

The development of UNFCCC negotiations and policy has shown the successive reinforcement at key instances of policy creation of the role GEF and the limitations of COP governance of the financial mechanism. Created at the same time as the SCCF and LDC Fund at COP-7 in 2001 and initially designated as a GEF responsibility, the several years taken to ratify the Kyoto Protocol meant that the process of determining the functions and governance of the Adaptation Fund took place slightly later. As a result of this short but important delay, there was time for experience with the LDC Fund and SCCF to reinforce perceptions that the GEF was an unavoidable political reality within the UNFCCC system (Agarwal et al. 1999). This experience lead to a spike in concern when the Adaptation Fund was operationalised, particularly in terms of funding areas, access to funding, and the GEF's Resource Allocation Framework (Müller 2006, pp. 23–24). In addition, the GEF replenishment before COP-11 had been something of a crisis, with developed countries, led by the US, imposing numerous conditions on their contributions in order to achieve greater scrutiny of GEF activities (Schipper and Boyd 2006, p. 82). These circumstances offered an opportunity and additional motivation for developing countries to pursue a governance arrangement that would differ from previous instances within the UNFCCC. It was clear that criteria for accessing future funds must be clearly articulated by the COP rather than being delegated to the GEF, in order to overcome the potential for replicating the same inequalities

and challenges that developing countries had experienced with the SCCF and LDC Fund (Mace 2005).

Developing countries' concerns about governance involving the GEF were evident during negotiations: at COP-11 in 2005, the G-77/China expressed concern that the new GEF Resource Allocation Framework 'could make it harder to operationalize the Adaptation Fund, and that co-financing requirements present a barrier to LDCs and SIDS accessing funds'. 'AOSIS, with others, added that the Adaptation Fund should be administered by the COP rather than by the GEF/World Bank' (both ENB-282). The G-77/China 'emphasized that for developing countries, having the GEF and World Bank acting as trustee would not be the best option for managing the Fund', while Tuvalu and Bangladesh said the COP 'should exercise its authority in administrating the Fund' (ENB-282). 'Namibia noted the cumbersome role of the GEF and called for an innovative approach to manage the Adaptation Fund' (ENB-289), while Japan, in contrast, 'stressed that the GEF should be the operating entity for the Adaptation Fund' (ENB-291).

At the subsequent SBI-24 meeting, developing countries expressed a largely consistent call for a new governance arrangement to be created, with an emphasis on governance by the COP/MOP (the term used because the Adaptation Fund sits under the Kyoto Protocol). The G-77/China brought a proposal for the Adaptation Fund and also 'referenced the need for further information from prospective institutions for managing the Fund, including whether the Fund would be managed separately and have autonomy from other funds' (ENB-301). In addition, 'AOSIS noted the need to avoid another fund that is difficult to access' (ENB-301). At COP-12, the G-77/China 'said the Fund's principles, governance structure and modalities should be agreed before deciding on institutional arrangements, and stressed that the Fund should be accountable to the COP/MOP' (ENB-310), and 'proposed a set of principles, including the COP/MOP's authority and guidance' and 'accountability of the Fund to the COP/MOP' (ENB-311). The LDCs highlighted the desire for independence, saying 'the Fund should be managed by an executive body such as the CDM Executive Board with regional representation, including LDCs' (ENB-310). This clearly highlights the push by developing countries to build a coalition of sufficient strength to deviate from the existing institutional structure and ensure that the COP, in which they have greater influence, is more able to exert its authority to govern the fund, rather than giving the GEF the primary role.

In line with the initial policy from COP-7, developed countries assumed that the GEF would have a prominent role in the Adaptation Fund (Flåm and Skjærseth 2009, p. 110), and remained committed to involving the GEF, corroborating Grasso's (2011) reports of distinct North-South blocs taking divergent views on institutional arrangements. At SBI-24 in 2006

(before COP-12), 'the EU, Canada, Switzerland and Norway preferred that the GEF be designated as the operating entity for the Fund' (ENB-301) and at COP-12 'Japan, Norway and Switzerland said the GEF is best placed to manage the Fund' (ENB-310). Echoing the confidence of its donors, 'the GEF underscored its qualifications to manage the Adaptation Fund' (ENB-316). Decision 5/CMP.2 (under the Kyoto Protocol) reflected the North-South division more closely than previous financial mechanism policy when it determined that 'the Adaptation Fund should operate under the authority and guidance of and be accountable to' the COP/MOP, 'which shall decide on its overall policies' (paragraph 1(e)), and that 'membership of the governing body of the Adaptation Fund shall be from Parties to the Kyoto Protocol, follow a one-country-one-vote rule and have a majority of Parties not included in Annex I to the Convention' (paragraph 3). This opened the door within policy for an alternative to the GEF to be introduced with a voting structure different to the GEF Council, but since proposals for managing the Adaptation Fund were invited from external organisations, the possibility remained that the GEF would be selected.

Developed countries continued to highlight their preference for the GEF as the managing entity, with Japan again stating its support at SBI-26 in 2007 (before COP-13) (ENB-324), and the GEF was the only organisation to submit a proposal to manage the Adaptation Fund (FCCC/SBI/2007/MISC.2). GEF representatives also lobbied hard at the beginning of COP-13 as they sought to secure a role for the organisation (ENB-354), which seemed inevitable as COP-13 progressed (ENB-347). However, the GEF was only given the role of providing interim secretariat services for the Adaptation Fund, and a new Adaptation Fund Board was created in decision 1/CMP.3 'to supervise and manage the Adaptation Fund, under the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol' (paragraph 4), marking a notable departure from previous fund management arrangements. The language used to establish the Board and COP/MOP oversight is equivalent to earlier decisions dealing with GEF management of the SCCF and LDC Fund, and the MOU with the GEF, but takes on a different implication in light of the independence of the Adaptation Fund Board. Decision 1/CMP.3 also gives the Adaptation Fund Board authority to receive applications directly from countries and their agencies and create relevant criteria (paragraphs 29 & 30), which heralded the more direct access to the fund that developing countries had called for, in contrast to the GEF system where funding can only be accessed via the GEF's three implementing agencies.

Various factors contributed to this break in the policy path prioritising the role of the GEF. Firstly, developing countries including the G77/China, African Group, LDCs and AOSIS were unified in their negotiating stance (Müller 2007, p. 10), indicating a strong coalition seeking institutional change. This is partly due to the Adaptation Fund receiving

the majority of its financial inflows from a levy on Clean Development Mechanism (CDM) projects. As mentioned above in 5.4.1, Khan and Roberts (2013, p. 175) argue that the levy actually extracts money from the nations hosting the projects, which are mostly larger developing countries such as China, India and Brazil. As a result, developing countries regarded the funding from the levy 'as their own money' and had a particularly strong desire to prevent its distribution being managed by the GEF, since they perceived the GEF Council as undemocratic in its voting structure and the Council would allow the USA to be involved in Adaptation Fund governance decisions, despite it not being party to the Kyoto Protocol (Grasso 2011, p. 370). Developing countries also demonstrated a strong collective concern with the most vulnerable countries having access to the Adaptation Fund (ibid.), contributing further to the unity amongst developing country groups.

Secondly, the G77/China alliance was increasing in economic and political clout (ENB-354) and the Adaptation Fund sits under the Kyoto Protocol. This meant that the USA, which had not ratified the Protocol, was excluded from relevant negotiations (Grasso 2011, p. 363). The absence of the USA represents a relatively "standard" example of a path dependence, where prior decisions taken by American politicians created a situation where subsequent American representatives in the UNFCCC were unable to participate in Adaptation Fund policy making. This shift in constituents of the developed country coalition, traditionally concerned with preserving the status quo, meant that European countries could take a more prominent role in negotiations. In advance of SBI-25/COP-12, the EU 'decided to go into listening mode' and held preliminary meetings with developing countries that helped both sides focus on core principles for the Adaptation Fund's governance rather than the specific issue of the GEF's role (Müller 2007, pp. 10–11). Without a key developed country involved, the reduced focus on reinforcing the status quo exhibited by the more prominent EU meant that developing countries were more able to articulate their preferences and gain legitimacy within the policy process, a necessary precursor to institutional change (Vatn 2015), and meant that the unified developing country coalition was able to gather sufficient political strength to secure change to existing institutional structures.

Thirdly, it must be recognised that the funding model for the Adaptation Fund meant that developed countries would only provide a small proportion of its funding. The new Adaptation Fund Board would govern the distribution of finance mostly *not* provided by developed countries, meaning the disadvantages to developed countries of giving up their pursuit of GEF management were lower than would be the case had they been providing the totality of the funding. At SBI-25/COP-12, the EU referred to 'the special features of the [Adaptation Fund] financed by the share of the proceeds' of the CDM (Grasso 2011, p. 372),

illustrating a cognisance of the fund's unique source. It is unlikely that this variation in advantage gained from institutional structure would have shaped developed countries' preferences to the extent that they would have brought about institutional change themselves (Fioretos 2011), but under pressure from a well-organised developing country coalition in the absence of the USA these lower costs of change can be seen as a factor in the reduced resistance to change shown by the EU.

Agreement on the Adaptation Fund Board, operating directly under COP/MOP governance and with a one-country-one-vote arrangement, was a significant breakthrough in light of the previous continued reinforcement of the GEF's donor-led role in managing the financial mechanism, and can be seen as the most significant example of developing countries overcoming an established path dependence within the UNFCCC in relation to climate finance. The institutional arrangements allowed the Adaptation Fund to pioneer procedures that would allow more direct access (Flåm and Skjærseth 2009), which has been praised as an innovative development that benefits developing countries' ownership of projects and the funding they receive (Bird et al. 2011) and is an unusually concrete policy response to longstanding concerns that developing countries have had about access to the GEF and, latterly, the SCCF and LDC Fund. As a result of its governance arrangements, the Adaptation Fund came to be seen as distinctly different to other UNFCCC funds and its direct access provisions went on to influence operation of other funds, such as the LDC Fund, illustrating the significance of the policy design (COWI and IIED 2009), and it has the potential to be a positive influence on the GCF after it was created at COP-15 and COP-16 (Horstmann and Abeysinghe 2011).

7.8 Attempts to capitalise on the break in policy path during negotiations for COP-15

Previous sections have shown that initial selection of the GEF gave weight to developed countries' preferences within the policy process, constraining the policy options available when the GEF was made permanent and the SCCF and LDC Fund were operationalised. Subsequently, the LDC Fund and SCCF did have a more deliberate focus on adaptation, and the circumstances existing at the slightly later point when the Adaptation Fund was operationalised allowed developing countries to gather a coalition of sufficient strength to overcome institutional constraints and secure novel and more equitable governance arrangements. This changing landscape left the institutions and governance of the financial mechanism in a greater degree of flux than the aspects of UNFCCC climate finance examined in Chapters 5 and 6, and this timing coincided with a significant broadening of the negotiating remit as the policy process moved towards COP-15 in Copenhagen in 2009,

where a comprehensive new agreement was expected to renew the climate governance regime from 2012 onwards. As negotiations leading up to COP-15 began, the opportunity existed to build on changes in the financial mechanism and push for a more significant new, independently-operated fund that could constitute a more significant pivot in the financial mechanism away from the GEF and towards the priorities and interests of developing countries.

7.8.1 Attempts to build a coalition supporting further institutional change

The road to the Copenhagen COP and the potential new governance regime was negotiated under the Ad Hoc Working Group for Long Term Cooperative Action (AWG-LCA). From the beginning of the AWG-LCA process, developing countries sought to gather a coalition of sufficient weight to achieve further changes to the institutional structure through the introduction of new funding arrangements. Although a variety of perspectives on the key problems and optimal institutional arrangements were in evidence, developing countries focused on funding for adaptation and technology, and access to funding in particular, alongside the general drive to increase funding examined in Chapter 5. This is not unexpected, given that adaptation funding and access were the key differences achieved with the Adaptation Fund's independent governance structure and the GEF, with its associated criticisms, remained the main funding body in the financial mechanism.

At AWG-LCA-1 in 2008 (before COP-14), South Africa 'proposed streamlining financing mechanisms and reconsidering the institutional framework' (ENB-360), Egypt 'urged new funding mechanisms', the G77/China and others 'proposed creating an umbrella multilateral fund under the Convention', and 'Mexico, Indonesia and India suggested creating a multilateral fund under the Convention with foreseeable and scalable contributions by developed countries and a transparent and inclusive governance structure' (all ENB-361). At AWG-LCA-2, AOSIS 'proposed the establishment of a Convention adaptation fund' (ENB-365) and, in what would become a key proposal, Mexico suggested 'a world climate change fund, or green fund, on mitigation, adaptation and technology transfer, with participation of all countries and contributions according to greenhouse gas emissions, population and GDP' (ENB-368). At AWG-LCA-3, AOSIS 'underscored adaptation as a major priority, and proposed the establishment of an adaptation fund under the Convention' (ENB-380), and at AWG-LCA-4/COP-14, 'China proposed establishing an adaptation fund and adaptation committee under the Convention' (ENB-390). At AWG-LCA-6 in 2009 (before COP-15), AOSIS 'highlighted the need for a Convention Adaptation Fund' and 'Tuvalu called for a multilateral climate change fund with five windows on: mitigation; REDD; adaptation; insurance; and technology' (ENB-415).

In terms of Improved or direct access to funding, at AWG-LCA-1, 'South Africa supported consolidating funding sources into one instrument that can be easily accessed' (ENB-361) and later at AWG-LCA-5, 'the LDCs said the new mechanism must provide easy access for LDCs' and 'the African Group underscored geographical representation, direct access, country-driven approaches…' (ENB-404). At AWG-LCA-6, the G77/China and AOSIS both highlighted the need for simplified access (ENB-415). At AWG-LCA-7, 'Bangladesh emphasized the need for a financial architecture under the UNFCCC, in conformity with the BAP, providing easy and direct access to resources especially for the most vulnerable countries', and AOSIS underscored the need to 'develop direct and simplified access to finance especially for SIDS and LDCs' (ENB-424). At the intercessional meeting between AWG-LCA-6 and 7, South Africa, 'with Bangladesh and others, underscored direct access under COP guidance' and Barbados illustrated developing countries' frustrations by likening 'the difficulties of access to having "been given an ATM card without the pin number"' (ENB-427). At AWG-LCA-7, 'Uganda, with Malawi, noted the need for improved access to funding for the LDCs' (ENB-438) and as the negotiation text continued to evolve, the G-77/China, 'called for reflecting their proposals more clearly in the text', 'stressing the need for direct access to funds by developing countries' (ENB-433).

Initially, developed countries demonstrated opposition to further institutional change, and remained focused on GEF reform as they sought to reinforce its place in the institutional structure. At AWG-LCA-1, 'Switzerland supported avoiding fragmentation of funding sources, and strengthening existing institutions, including the GEF' (ENB-361), and Japan 'supported focusing on the existing financial architecture' with Australia at AWG-LCA-4/COP-14 (ENB-390) and again at AWG-LCA-5 (ENB-400), with the EU at AWG-LCA-6 (ENB-406), and at AWG-LCA-7 (ENB-434). At AWG-LCA-5, 'Japan, Australia, Switzerland and others, opposed by Barbados, the Philippines and others, supported enhancing existing institutions' and 'New Zealand said new institutions would add new bureaucracy' (ENB-404). However, some developing countries did also advocate reforming the GEF and the existing system, such as the LDCs, which said at AWG-LCA-7 that 'the focus should be on making current institutions more responsive and less expensive due to limited resources. He expressed preference for a single fund with specific windows for mitigation, adaptation, technology and capacity building' (ENB-437[6]). Such perspectives serve as a reminder that the GEF remained a significant feature of the financial mechanism and suggests an ongoing legacy of the path dependence that led some developing countries to see more potential for incremental institutional change and increasing finance flows by remaining within the boundaries of the existing institutional structure.

7.8.2 Building momentum for more significant institutional change

Discussions continued throughout 2009 and North-South divisions over a new organisation persisted: at AWG-LCA-7, 'on institutional arrangements, developing countries generally supported a new financial mechanism under the authority and guidance of the COP, with balanced geographical representation and direct access to funds, while developed countries called for the use of existing institutions' (ENB-439). 'The use of existing mechanisms was opposed by the Philippines, for the G-77/China, Uganda, for the LDCs, and Egypt, for the African Group' (ENB-434), demonstrating considerable unity amongst three of the main developing country negotiating blocs. The G-77/China also 'stressed that existing institutions had failed as a finance delivery system, objected to co-financing and said that the architecture should be concentrated in "one house"' (ENB-434). In contrast, developed countries chose to raise concerns about creating a new, large and potentially bureaucratic fund: 'Japan cautioned against creating new bureaucratic organizations, noting the need to reconsider the role and scope of the existing funds under the Convention and Protocol in order to avoid duplication' and 'Canada identified the need to further discuss the extent to which all funding activities could be concentrated in a single institution, cautioning against assuming that "bigger is less costly or more efficient"' (ENB-437[6]).

Developed countries even made reference explicitly to existing institutional structures and design, such as the US stating that 'the Convention provides that the financial mechanism should be entrusted to existing institutions' (ENB-429). This was reinforced when 'the EU, supported by the US and Switzerland, expressed reservations with language on establishing the financial mechanism of the Convention. He highlighted the financial mechanism under Convention Article 11 and indicated that the emphasis was on further developing the financial architecture' (ENB-430). This is evidence that after the Adaptation Fund's creation, developed countries still sought to reinforce the path dependence underpinning GEF involvement in the financial mechanism, with developed countries keen to secure GEF involvement and retain the advantage they gained from this element of the institutional structure as the prospect of a new fund gained prominence within the AWG-LCA. These statements are important context for the subsequent move by the USA, also at AWG-LCA-7, when it contributed a proposal of its own 'for a global fund for climate. He said the new arrangements envisaged the continuation of the Global Environment Facility (GEF) as an operating entity of the financial mechanism' (ENB-435) and 'envisaged new arrangements and not the creation of a new institution' (ENB-437[6]), indicating attempts at policy layering that would preserve rather than replace the existing institutional architecture.

Developing countries were initially critical of this move by the US, a reaction consistent with the longstanding North-South or donor-recipient conflict and the prospect that a new fund would be part of or managed by the GEF. Although it included 'balanced representation of net contributors and net recipients' and recognised the need for simplified access procedures, the G-77/China 'said the US proposal does not address the problems with the current financial mechanism' (ENB-435), demonstrating that developing countries remained focused on institutional and governance changes that would give them greater influence over governance of a new fund, enabling it to better meet their needs and overcome the problems they have experienced with the GEF. Various other proposals were put forward by Argentina, AOSIS, Australia and Japan, but it was the early proposal from Mexico at AWG-LCA-2 'for a green fund compatible with existing UNFCCC funds' (ENB-366) that gathered the most significant traction within the negotiations, and was eventually merged with the US proposal to form the basis of the final GCF. Responding to these developments, evidence suggests that developed countries moved away from the GEF but stood firm behind the World Bank in order to secure some involvement for institutions over which they had greater influence: At COP-15, 'developed countries generally preferred that the World Bank should act as the trustee' for the new financial mechanism arrangements, 'while many developing countries preferred new arrangements to overcome problems experienced with the current financial mechanisms' (ENB-459).

As mentioned previously, COP-15 ended in political failure with a brief Accord the only outcome from the AWG-LCA process. Nevertheless, a new, separate institution was created in the form of the Green Climate Fund, which the Copenhagen Accord (decision 2/CP.15) decided 'shall be established as an operating entity of the financial mechanism of the Convention' (paragraph 10), meaning it would have an equivalent institutional status to the GEF rather than being part of it. In addition, the new GCF would cover the full spectrum of UNFCCC funding areas (paragraph 10) and have a 'governance structure providing for equal representation of developed and developing countries' (paragraph 8). These features indicate that the GCF would potentially reinforce the policy path initiated by creation of the Adaptation Fund rather than the GEF policy path, but the brevity of the Copenhagen Accord meant that detailed design was not created at COP-15 and negotiations on establishing the institutional form and operational rules of the GCF continued after COP-15.

7.9 Operationalisation of the GCF and the legacy of institutional structures

Although the creation of the GCF was noted in the Copenhagen Accord, the lack of detail meant that there was significant room for subsequent proposals and debates about how it

would be structured and under what principles and rules it would operate. At AWG-LCA-10 in 2010 (before COP-16), the US indicated its desire to preserve the position of the GEF, stating that 'the new fund and the GEF would each play an important and complementary role, with the green fund focusing on large-scale investments' (ENB-464). However, the US added that the GCF 'would have its own board composed of finance experts with equal representation of developing and developed countries and would be accountable to the COP' (ENB-464), more in line with developing country perspectives on institutional design. Other developed countries supported these proposals, with Australia suggesting that the GCF board 'decide on how thematic areas will be funded' and Canada advocating 'an accountable body making decisions on funding, well informed by expert-level decisions' (both ENB-464). US references to making the new fund accountable to the COP were 'cautiously welcomed by developing countries, who have long called for a financial mechanism under the authority of the COP. They commented, however, that "this still leaves unanswered the question of the level of accountability to the COP and the wider financial framework, which are key issues to be resolved"' (ENB-472).

Developing countries demonstrated a continued push to shape the governance of the new fund and its board, even suggesting a "forum of entities" to perform key oversight and coordination functions for funds across the financial mechanism (FCCC/AWGLCA/2010/8, chap. III, paragraph 14). This was clearly beyond the tolerance of developed countries, though: 'the EU, US and other developed countries tended to favor [sic] the use of existing institutions to perform these functions' (ENB-478). Nevertheless, developing countries continued to push for a new board to oversee the GCF in submissions to the AWG-LCA (FCCC/AWGLCA/2010/MISC.6/Add.1) and in negotiating statements (e.g. ENB-480, 488), with disagreement ensuing about how many members of the GCF board should come from developed and developing countries (ENB-478, 495). The details were finalised at COP-16 in Cancún, where the Cancún Agreements (decision 1/CP.16) decided 'that the Fund shall be governed by a Board of 24 members, comprising an equal number of members from developing and developed country Parties' (paragraph 103) and invited the World Bank to serve as the trustee of the GCF's assets (paragraph 107), an administrative rather than operational role and the same given to the World Bank for the Adaptation Fund. A Transitional Committee was also created to design the operational aspects of the GCF, with mixed membership of developed and developing countries (paragraph 109).

There are two themes from the negotiations that can offer insight into why developed countries became active participants in overturning the path dependence centred upon the role of the GEF, adding additional nuance to our understanding of how creation of the GCF reflected and affected North-South relations. The first theme is the move to connect

institutional change and the prospect of a new fund with the trend towards private and other sources of climate finance. Developed countries sought to ensure that private sources of finance were at the core of the new fund's functioning, in contrast to the GEF's public financing. For example, at AWG-LCA-4/COP-14, 'the US, Norway and Canada highlighted the importance of the private sector' in relation to the future of the financial mechanism (ENB-390). The EU contributed to discussion of Mexico's proposal for a new fund by emphasising 'that the "core" of the negotiation is how to mobilize effective financing and that parties need to discuss linkages between sources of funding to create a coherent system' (ENB-434), and as the US' influential proposal was taking shape, it explained that 'the fund would utilize a variety of financial products' (ENB-437). The GCF's engagement with private investors and corporations was a key demand of developed countries, and its potential for mobilising private funding is seen by donors as a key benefit of the GCF in the context of constrained public budgets (de Sépibus 2015, pp. 310–311, Bowman and Minas 2019, p. 351); as discussed in Chapter 6, increasing the prominence of private finance will advantage developed countries by reducing the focus on public finance and its connection to normative arguments about their obligations to compensate developing countries.

The second theme is the connection between institutional change the continued effort by the US and other developed countries to move beyond the Convention and Kyoto Protocol's sharp divide in responsibility between developed and developing countries. As Mexico explained,

> *participation in the fund would be voluntary, but that once parties had opted in, their contributions would be based on assessment criteria related to emissions, population and economy. Saying that developing countries' contributions would be "much smaller but not zero," he expressed concern that, without developing countries taking any responsibility to act, "the victims of today may become the culprits of tomorrow." He highlighted, inter alia, that: the LDCs would be the only "accepted free-riders;" developing countries would get more than they contribute; and the green fund would not eliminate obligations under other elements of the financial architecture* (ENB-434).

With this proposal, Mexico positioned itself between developed and developing countries, and indeed 'the G-77/China, Pakistan, the African Group, Saudi Arabia, China and India expressed reservations with the Mexican proposal' (ENB-434). The wider participation of the Mexican proposal was echoed by the US when explaining its proposal for a new fund: the US 'indicated that all parties, except the LDCs, would contribute to the fund in line with capabilities but that contributions would not be mandatory' (ENB-435). Thus, while the centrality of the GEF may have been successfully overcome by developing countries, the GCF

offered a means to institutionalise the new regime's dilution of differentiation between developed and developing countries (Brunnée and Streck 2013) and therefore a potential advantage to developed countries over the GEF.

These two key shifts in the negotiating landscape are examples of developed countries accumulating sufficient advantage from institutional change to outweigh the losses associated with giving up the prior institutional structure, a threshold that historical institutionalists argue is required for change to occur (Fioretos 2011, p. 375). These calculations and choice points are shaped by the institutional context in which the relevant actors are operating and 'the feedback effects that have defined the conditions within which specific policy and institutional choices are being made' are a key driver of preference formation amongst actors within the institution (Thelen 2004, p. 288). Developed countries' increasing prioritisation of private sources and their push to reduce differentiation between developed and developing countries as donors of climate finance resulted in a different calculation to in previous policy rounds such as creation of the SCCF and LDC Fund, meaning developed country preferences shifted away from preserving the status quo and towards facilitating institutional change. The structure of the GCF with its separate board represents an example of policy "layering", where new institutional rules are added on top of existing ones to, in this case, solidify institutional change initiated with the Adaptation Fund's design (Mahoney and Thelen 2009, p. 16).

While these developments were significant for North-South relations within the UNFCCC, initial operationalisation of the GCF at the Cancún COP is not the end of the story. A Transitional Committee was initiated in Cancún, which would be responsible for designing the operational procedures and other details for the GCF (Müller 2011) and ultimately for determining the extent to which the new fund improved on the existing financial mechanism (Drummond 2011). The Transitional Committee was the site of significant North-South battles (Bracking 2015) and resulted in a more donor-dominated governance process, rather than consensus-based, and cemented the role of private finance in fulfilling the voluntary pledges that now underpin the UNFCCC regime, reinforcing the prominence of private finance as a key objective of developed countries (Vanderheiden 2015). Although the GCF retains a balance between adaptation and mitigation funding (Fridahl and Linnér 2016), its operationalisation means that the GCF has ended up firmly rooted in the new bottom-up, pledge-based regime and its governance has not embedded the independence and North-South balance that developing countries have fought consistently to achieve. The circumstances of the GCF's creation and the move by developed countries to participate in rather than continue obstructing the creation of a new, more comprehensive fund under the UNFCCC suggests that while creation of the GCF

constitutions an instance of institutional change, the advantages it brought to developed countries mean that it continues the pattern of greater influence over institutional structure that developed countries have derived from the prior evolution of financial mechanism policy.

7.10 Conclusion

The financial mechanism is central to developing countries' involvement in the UNFCCC regime and shapes the reality of how recipients of finance obtain and use the money that they have consistently argued is a right, rather than an option (Müller 2008a). As the process of creating the UNFCCC began, the GEF, a creation of developed countries as a donor-led vehicle for environmental funding, was in a prominent position. Developed countries and the GEF itself sought to ensure that the institution would be brought into the environmental governance regime created at the UNCED, and their success replicated the broader North-South power inequalities associated with the development assistance system. Developing countries were unable to secure a new fund that would be under their influence to a greater extent (via COP oversight), and this outcome set the stage for an ongoing struggle to shape governance arrangements to increase their influence over the functioning of the financial mechanism. This struggle initially focused on the role of the GEF, but other elements of the financial mechanism's operations, such as access to funding and the weight given to adaptation funding have remained issues of concern as the institutional structure of the financial mechanism has evolved, demonstrating how difficult it has been for developing countries to achieve policy outcomes they have sought.

There is substantial evidence that the initial selection of the GEF conferred an advantage that developed countries capitalised on when the institutional linkage between the COP and the GEF was articulated in the MOU and the GEF was subsequently made a permanent operating entity of the financial mechanism. Developing countries consistently raised concerns about how the GEF functioned and was governed, and the three new funds created at COP-7 in Marrakesh presented a significant opportunity for the financial mechanism to better reflect the needs and priorities of developing countries. However, this was in line with the increasing prominence and understanding of climate change adaptation both within and outside the UNFCCC, and developed countries were successful in ensuring the SCCF and LDC Fund were placed under the management of the GEF, leaving developing countries to face familiar inequalities of influence over their operationalisation.

A delay in operationalising the Adaptation Fund created an opportunity for an emboldened G77/China, capitalising on the outcome of SCCF and LDC Fund negotiations and the absence of the USA, to build a coalition in support of deviating from existing

institutional structures to the extent that the new fund would feature an independent governance arrangement that would finally bring about institutional separation from the GEF. The Adaptation Fund Board was created and its positioning directly under the Kyoto Protocol's COP/MOP signified a notable break from the path dependence that had hitherto constrained policy choices to those involving the GEF. Developing countries also achieved a new policy of direct access to the Adaptation Fund, notable since access to funding was a key theme of frustration with their experiences of GEF funding over the life of the financial mechanism and would go on to become an influential feature of the financial mechanism.

The pivot in the trajectory of the financial mechanism, and the potential break of the path dependence centred on the GEF, coincided with the development process for a potential post-2012 climate governance regime, due to be agreed at COP-15 in Copenhagen. With all elements of climate policy covered within the AWG-LCA process, developing countries had an unprecedented forum in which to argue for creation of a new, much larger fund that would feature institutional independence under the authority of the COP, equitable representation in its governance structures, direct access and a balance between funding mitigation and adaptation. While developed countries initially focused on reform of the GEF and using existing institutions to meet the demands of developing countries, the numerous proposals for a new fund gained enough momentum within the negotiations that eventually developed countries, in particular the US, joined in with their own proposals. The GCF represents the end of the prominence of the GEF within the financial mechanism and the path dependence that constrained policy making for the first 10-15 years of UNFCCC operation. However, while in time the GEF may be replaced altogether by the GCF (Vanderheiden 2015), developed countries ensured that the new fund was consistent with their broader push to erode the previous distinction between developed and developing countries and include as much private climate finance as possible. This facilitated institutionalisation of the expectation that, eventually, most countries would be expected to contribute to the GCF and the fund had little formal connection to normative arguments about historical responsibility. The financial mechanism thus remains, as it has been since its creation, based on an institutional structure that gives considerable advantage to developed countries and is largely in line with their preferences.

Part III:

RESEARCH FINDINGS, DISCUSSION, CONTEXT AND CONCLUSION

8. Drawing together and discussing research findings

8.1 Introduction

Although the landscape of developing countries and their incomes and emissions has changed over the course of UNFCCC history, climate change remains defined by North-South and rich-poor divisions (Gupta 2015, p. 142). This is particularly true for climate finance, where the very basis of the policy area stems from North-South histories and encapsulates current inequalities. Approaching climate change politics from a historical institutionalist perspective facilitates investigation of institutional factors not yet widely studied in this context. Although there is a growing body of research using historical institutionalism to examine state sovereignty, international political economy, and international security, law and governance (Fioretos et al. 2016a, p. 4), little of this research has addressed global environmental governance institutions based on multilateral environmental agreements. This thesis has extended the use of historical institutionalism to the UNFCCC, investigating how its institutional design reflected broader histories of injustice and uneven power distribution, and how this design contributed to the development of institutional rule structures that in turn affected actors' ideas, priorities, coalitions and power, constraining policy making and shaping the nature and justice of outcomes.

The preceding three chapters have scrutinised the history of key areas of North-South contestation within the UNFCCC climate finance policy process, setting out in detail the examination of source material through production of temporally constructed narratives that trace the layering of policy over time in combination with evidence of Parties' strategies, priorities, coalitions and ideas. This historical institutionalist analysis has revealed how the formation and evolution of the UNFCCC's institutional structure have shaped policy stability and change and affected how developed and developing countries have interacted within negotiations. This discussion chapter will build on the temporal analysis, bringing together the micro-processes and institutional factors that the historical institutionalist approach has drawn out and showing how they have entrenched North-South division and constrained opportunities for developing countries to achieve climate justice as they perceive and define it within the climate finance policy process, and thereby why these factors matter to our understanding of the politics and justice of the climate finance policy process. The chapter will continue by linking back to broader North-South political

dynamics and developing countries' struggle for political influence and just outcomes to discuss how the historical institutionalist analysis can expand our understanding of international climate justice and global politics and contribute a new dimension to existing understandings of policy outcomes and the longevity of North-South divisions within the UNFCCC.

8.2 Drawing together the analytical findings

The three analysis chapters in this thesis have dealt with four significant areas of policy contestation that reflect aspects of North-South histories and division: the underlying voluntary basis of climate finance, additionality rules and defining climate finance, the range of finance sources acceptable in the UNFCCC system, and the governance and configuration of the financial mechanism. The analysis in this thesis has been undertaken using the theoretical toolbox provided by historical institutionalism, which includes mechanisms such as institutional design, path dependence, increasing returns and policy paradigms, all of which may be present in varying degrees and have different impacts on how institutional rules and structures develop over time and influence actors' power, ideas and behaviour within the policy process. Examining these aspects using a historical institutionalism approach has illuminated the ways that institutional structures have been forged, have shaped and constrained policy development and the actions of Parties, and, in limited cases, have been altered. This first section of the discussion chapter will draw out core findings from the analysis chapter and highlight interconnections and commonalities, while also summarising the prevalence and significance of mechanisms that illustrate the influence of institutional rules and structures. In doing so, the section will explore how the use of historical institutionalism can contribute to our understanding of climate change governance and justice, and what this case can tell us about using historical institutionalism to study treaty-based international governance regimes such as the UNFCCC.

Firstly, the origins of the UNFCCC, a key element in historical institutionalist scholarship, are explored in the context of the findings from analysis of the subsequent policy process and institutional development. The following sub-sections address the extent to which mechanisms of institutional stability, reinforcement and change were identified in climate finance, and then how actors have derived and reinforced power advantages from the institutional design and structures, and how that power has varied and been deployed. The section will then discuss how coalitions of actors have formed in response to institutional design and ambiguity in institutional rules, and been constrained by rule structures and policy layers within the institution. Next, the section will address how institutionalisation of key ideas and policy paradigms have shaped actor behaviour and

played a role in reinforcing the power of actors. Lastly, the section will discuss the evidence and significance of path dependence as a factor in institutional reinforcement and influence on policy making.

8.2.1 Initial institutional design

This thesis has placed considerable emphasis on the creation of the UNFCCC, because 'political institutions do not exist nor are they developed in a vacuum. Rather, they function in concert with other pre-existing mechanisms' (Farrell and Newman 2010, p. 630). Created in 1992 when the Framework Convention on Climate Change was signed at the UN Conference on Environment and Development, the UNFCCC followed in the footsteps of prior international environmental agreements, in particular the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol. Discussion of environmental issues at the global level had been developing since the 1970s, and these early discussions and conferences were a key site of engagement for the emerging coalition of developing countries that would become the G77/China. Some of the strongest evidence of the significance of institutional influence has come from analysis of the Convention and the process leading up to its agreement; all three analysis chapters revealed the dominance of Northern countries in shaping the way the climate change problem was framed within negotiations and setting up the policy process to reflect broader political structures and the landscape of power distribution (O'Riordan and Jordan 1999).

Historical institutionalism looks upon institutions 'first and foremost as the political legacies of concrete historical struggles' (Mahoney and Thelen 2009, p. 7). This perspective has helped to draw out the implications of the UNFCCC's creation in light of prior environmental treaties and the history of North-South disagreement over development funding and global governance institutions such as the World Bank. These histories contributed to North-South differences in conceiving of the climate change problem, and to power distribution that affected which countries were more able to influence the conception of climate change that the UNFCCC was shaped to respond to. North-South divisions emerged in the policy process as developing countries became more engaged in global environmental politics and were influential shaping the debate over the initial principles and rules that would form the UNFCCC, such as ideas of liability and compensation replaced by presentation of climate change as an issue that developing countries would require assistance to tackle (Gupta 2014), and principles such as additionality and a compensation basis for climate finance failing to become clear institutional rules.

Central to the UNFCCC's creation was its connection with the existing ODA system, which had long been perceived as dominated by donor countries and set up to give them control over how much funding they provided, how it was used and the institutions that distributed it. By resisting efforts to make UNFCCC negotiations a broader discussion of poverty and development, developed countries were able to frame climate finance as an extension of the voluntary assistance familiar from ODA (Bodansky 1993, Dasgupta 1994), ensuring their interests were prominent within the Convention (Immergut 1998). This prominence was reinforced by linking climate finance to the GEF, an institution specifically set up to be controlled by donor countries (Boisson de Chazournes 2005, p. 193). Building this institutional connection into the foundational document of the UNFCCC institution is evidence of "network co-ordination effects" described by (Hall 2016), where developed countries connected UNFCCC climate finance to the broader network of international governance institutions. As Pierson (2004, p. 150) suggests, this put pressure on actors within the UNFCCC to adapt to the new context of the institutional configuration.

An important part of the institutionalist approach to institutions is their role in shaping the expectations of actors within them (Hall and Taylor 1996). Links to the discretionary ODA system and use of the GEF set the stage for the UNFCCC's structural elements to lead developing countries to expect that climate finance would largely be controlled by developed countries. The analysis chapters have shown that developing countries' constant resistance to this control reflected their power imbalance; the initial institutional design meant developing countries' starting point for engaging in policy negotiations was based on developed countries' preferred arrangements. This has been the case for amounts of finance, additionality policy, definitions and sources of climate finance, and the structure and purpose of funds within the financial mechanism; across all these areas, developing countries have expended an enormous amount of negotiating capital battling to shift policy discussions away from a default status quo, a set of options or a policy ambiguity shaped by initial institutional structures that were based on developed country preferences and the prevailing North-South power asymmetries in place at the time of UNFCCC creation.

These findings are consistent with historical institutionalist expectations that the initial institutional design will lock in existing power asymmetries (Thelen and Steinmo 1992, Mahoney 2000), thereby amplifying the effects of strategic actions by more powerful actors to maximise their interests within policy processes (Steinmo 2008). Across negotiations on voluntary finance, additionality and finance sources, and the role of the GEF in the financial mechanism, the initial institutional design largely reflected developed countries' preferences, meaning that the subsequent expression of these preferences in the

policy process often coalesced around maintaining the status quo of institutional rules and structures (Hall and Taylor 1996). The few examples of notable institutional change within the four themes, such as creation of the SCCF, LDC Fund, Adaptation Fund and GCF, involve circumstances where developed countries altered the weight they applied to their preferences for maintaining relevant institutional rules and structures, paving the way for their alteration or creation of new institutions (Hall 2009). In some of these cases, such as operating rules for the SCCF and LDC Fund, the extent of change was limited when developed countries' expectations of GEF involvement were realised in policy (Mace 2005, p. 240), reinforcing underlying policy structures and network co-ordination effects.

Material interests are also at the heart of North-South divisions over climate finance: developing countries can see that the altered development paths required to curtail emissions will be expensive and require funding, while developed countries know that the vast sums involved in responding to climate change, let alone the broader development agenda, are politically unpalatable to domestic voters and difficult to achieve when the 0.7% UN target for aid is met by only a handful of countries (Knoke and Duwe 2012). The process of regime building in the context of these material interests, while the global political community debated how to co-ordinate a global response to climate change, has similarities with the process of post-war international order building described by Ikenberry (2016). At the historical moment that was the formation of the UNFCCC, analysis in this thesis has shown that the countries involved pursued their material interests and more powerful developed countries were more able to ensure the new regime was established with rules and institutional links that would advance and protect their interests.

The historical institutionalist approach has facilitated the incorporation of both ideas or normative perspectives and material factors into the understanding of how the UNFCCC was created (Fioretos et al. 2016a), and how prevailing international power distribution was incorporated into the institution's initial structure and rules. This helps to explain why, although developing countries had been partially successful in moving climate change from simply an environmental, or technical issue, to one that included broader issues of development and poverty (Najam 2005), the initial institutional rules set out in the Convention reflected developed countries' unwillingness to be bound by financial commitments based on historical responsibility and broader ethical considerations raised by development and poverty issues. This thesis' analysis of the original institutional rules and norms has shown that while ideas of justice, burden sharing and development were included on paper, these aspects of the UNFCCC's institutional design quickly became points of contention and were not institutionalised in a manner that constrained the ability of developed countries to dominate the evolution of climate finance policy.

8.2.2 *Institutional stability and change*

Most historical institutionalists utilise a power-political view of institutions that focuses on how institutional configuration affects the distribution of resources and power, and many look to increasing returns to power to explain how and why institutions persist (Mahoney and Thelen 2009). Often increasing returns, or the delivery of benefits derived from the persistence of institutional configurations over time is conceived in utilitarian or material terms (Mahoney 2000), but this thesis has shown that material benefits related to climate finance must be considered alongside ideational factors that underpin influence over the policy process and the design of subsequent institutions within the UNFCCC climate finance system. Developed countries were much more successful than developing countries in securing initial institutional design that corresponded to their preferences and conferred power and distributional advantages upon them. Proceeding from the Convention, the climate finance policy process did not entirely reflect the reinforcement of positive feedbacks that favoured Northern countries, but this was certainly the most common manifestation of increasing returns within climate finance policy.

These findings reflect Bennet and Elman's (2006) argument that the key question for historical institutionalism in political life is for whom an institution's rules are efficient or beneficial, as opposed to the evaluation of efficiency more commonly associated with the economic roots of institutionalism. Interpreting the continuation of the North-South division that characterised the creation of the UNFCCC as a division over the political efficiency of the institutional arrangements offers an explanation for the underlying similarity of the four policy areas, which all showed that developing countries challenged the perceived efficiency of the rules and institutional configuration of the UNFCCC with reference to its ongoing failure to deliver the funding promised by developed countries, let alone levels that they would deem adequate to meet both needs and ethical obligations. Developed countries, meanwhile, built on the initial institutional design features, such as connection with the GEF, permissibility of multiple sources and avenues of finance, to preserve the perceived efficiency of UNFCCC climate finance policy rooted in the control over how much finance would be provided by developed countries to developing countries.

Pierson (2004) asserts that continued reinforcement of these advantageous institutional features makes the power imbalances within the policy process less visible, as a result of shifting actors' expectations over time. However, all four analytical themes show that developing countries consistently voiced their frustrations with policy design that did not meet the justice- or material-based perspectives they held, suggesting that they remained acutely aware of the power imbalances within the policy process. Whether in light of the headline figures announced at COP-15 or the INDC system at Paris, developing countries'

actions appear to be motivated by a drive to overcome the power that developed countries held over the institutional inertia and foundations of policy design. Even when the US$100bn commitment from Copenhagen became institutionalised over time, developing countries still challenged its adequacy, with their rhetoric indicating expectations unconstrained by institutional rules. As a result, the shaping of expectations is one of the weaker areas of historical institutionalist explanation with the four themes under analysis.

A more promising explanation for institutional stability and change is that the success or lack of success experienced by developed and developing countries, respectively, reinforced a sense of identity amongst them as coalitions seeking to, in general, preserve or alter the rules and structures of the institution (Skocpol 1995, p. 105, Hall 2016). There is considerable evidence of the forming and manoeuvring of various coalitions of actors over the course of the period under analysis, mainly following a North-South split, and the dynamic is almost universally consistent with the characterisation of climate finance negotiations across all four of the policy contestations as developed countries seeking to preserve institutional rules and developing countries seeking to alter them. Understanding when coalitions were successful in changing or preserving institutional rules and interpretations thus links coalitions, as an explanation of actor behaviour, with reference to advantages gained from initial institutional design and policy paradigms as an explanation for the power held (or not held) by coalitions.

There is little evidence in the historical analytical narratives for positive feedbacks that lower the running costs of incumbent institutional arrangements as a result of actors' building up experience and information about those arrangements over time. This is a common feature in historical institutionalist work dealing with national bureaucracies where particular policies or functional arrangements can run with lower operating costs over time or require more significant investment to alter once in place (Woerdman 2004). Analysis here suggests that this form of increasing returns is not a notable part of climate finance policy within the UNFCCC, perhaps because the institution is relatively young and much of the debate has been about exactly what climate finance is and how much should be provided, rather than about the policy tools through which particular objectives are pursued or services delivered, as would be the case with a health or welfare ministry in a domestic government, for example.

Arguably the most frequent criticism levelled against historical institutionalism has been an inability to explain changes that occur within institutions, or adequate attention paid to such changes (Hira and Hira 2000). Most early historical institutionalist literature suggested that change occurs as a result of significant exogenous shocks, which created opportunities for actors to overcome path dependencies and reshape or create new

institutions (Thelen and Steinmo 1992). More recent work has examined smaller developments originating within institutions in an effort to account for incremental institutional change (e.g. Mahoney and Thelen 2009). The four areas of historical analysis in this thesis demonstrate that institutional change, where it has occurred, has been more of an endogenous process and significant external shocks have not featured in the progression of climate finance policy within the UNFCCC during the period studied. While new institutions have been created, they have been policy instruments rather than a fundamental challenge to or replacement of the UNFCCC itself or the inclusion of climate finance within its remit, for example the creation of the SCCF and LDC Fund at COP-7 or the US$100bn finance commitment at COP-15.

Viewing the UNFCCC climate finance policy process over time allows a picture to emerge of developed countries benefitting from institutional configuration and successive layers of rules and norms, and seeking to preserve their advantage by accepting or even initiating incremental change to institutional rules. Instances of institutional change have been found most significantly in the architecture of the UNFCCC's financial mechanism, particularly the creation of the Adaptation Fund and GCF, with their separation from the GEF. Both instances display evidence of policy "layering" and coalitions of actors navigating the calculations of advantage and disadvantage that shape actors' preferences regarding institutional change (Fioretos 2011, Hall 2016). The unusual absence of the USA, a key developed country, from the Adaptation Fund negotiations makes this example unrepresentative of the broader evidence of institutional change over time in UNFCCC climate finance. Developed countries had relatively little to lose with the Adaptation Fund since it is funded from the CDM levy and developed countries gained significant new advantages from the creation of the GCF and its operational design, so in both cases the institutional structures affected how and when developed countries' preference calculations led them to accept institutional change pushed for by developing country coalitions.

8.2.3 Power

Within climate finance, the key source of power that has emerged from the historical analytical narratives is the ability of developed countries to control the North-South flows of funding. This corroborates and adds an institutional perspective to the characterisation of climate politics by other scholars such as Ciplet et al. (2015, chap. 4), who describe the combination of developed countries' ability to withhold funding and ability to make pledges when analysing power in climate negotiations. The historical institutionalist analysis has explained the power advantage developed countries gained from institutional structures that supported their control over finance flows and their consistent attempts to reinforce

this control and the supporting institutional structures. Sometimes this entailed frequent promotion of their voluntary pledges of finance to indicate the existing structure was working, but on rare occasions developed countries went as far as making explicit threats to reduce, cut off or hold back funding, particularly at COP-15 and COP-21. This builds on attention to how the design of the UNFCCC locked in this power asymmetry from its beginning, with the Convention offering no institutional rules or mechanisms to impose requirements on developed countries and reinforcing the voluntary development assistance paradigm present in the ODA sector. Even when policy changes or new institutional arrangements such as the Adaptation Fund brought minor alterations, the institutional structures underpinning the power held by developed countries were left largely unchanged.

These findings are a reminder of the context in which the UNFCCC was created, more specifically the legacy of global response to the ozone layer problem. Various scholars have detailed the progression of international environmental agreements and the influence of the Vienna Convention and Montreal Protocol on the design of the UNFCCC (Cumberlege 2009, Green 2009, Hale et al. 2013). Despite a similar expectation that developed countries would take responsibility for the climate change problem and co-operate to facilitate a global response (Wirth and Lashof 1990), the UNFCCC has not replicated the success of the ozone regime in bringing about its intended outcomes. In the climate finance area, this thesis has shown that although the UNFCCC regime adopted principles such as CBDR, which were drawn from previous environmental agreements and expected to shape subsequent behaviour, the ambiguity of corresponding principles and stipulations in the Convention did not link ideas about general responsibility to any specific obligations, measures or outcomes. This contributed to the power that developed countries gained from the Convention, over interpretation and fulfilment ideas about their "responsibility" to provide finance.

While the Convention was relatively vague and developed countries rarely explicit in exerting their power to withhold climate finance flows, developed countries nevertheless often appeared one step ahead of developing countries, accepting or even initiating relatively minor changes to institutional rules almost as appeasement to the consistent demands of developing countries. As a result, changes such as creation of new funds or the headline finance figures from Copenhagen have built on previous layers of policy and rules to bring about gradual change that has actually protected developed countries' power to shape finance policy and obligations. In other areas, such as additionality rules or criteria for finance sources, developed countries have been able to preserve the initial landscape of institutional rules that granted them control and underpinned their power from the outset. As a result, it appears that the advantageous position derived from the initial institutional

configuration allowed developed countries to repeatedly reinforce the favourable rules and paradigms; since their material power was largely aligned with existing institutional rules (Hanrieder 2014), a more blunt exercise of their power to refuse funding was rarely required to achieve policy outcomes that they deemed satisfactory.

At this point, the obvious response would be to suggest that developed countries could never fully cut off funding, since the established normative basis of the UNFCCC, including CBDR and the objective to prevent harmful climate change, has shaped expectations of all Parties that North-South funding is an integral part of the global governance regime. In addition, climate finance is only one of the UNFCCC's policy areas, and crude threats to exercise the full extent of developed countries' power in this area were wrapped up in wide-ranging negotiations on mitigation, adaptation and so on. The nature of North-South interaction has made it difficult to tell how material this power is in reality since, at least in the realm of climate finance, developing countries do not appear to have responded to it in kind, and instead made consistent use of normative and justice claims as they strived to build coalitions of actors that could bring about institutional change and achieve their desired outcomes within the policy process. Nevertheless, this thesis has added an institutional perspective to existing scholarship by showing that developed countries have been very successful in preventing the introduction of institutional rules or norms that would actually compel them to provide funding, and as a result their control over finance flows has remained as a lever of power influencing North-South interaction over climate policy.

8.2.4 Coalitions of actors

Another area of strong evidence of institutional influence on actor behaviour within the UNFCCC is in the interplay between coalitions of actors and components of the institutional structure. Hall (2016) argues that such coalitions are key to preserving institutional stability, and that significant institutional change requires stronger coalitions than are necessary for smaller-scale, incremental changes. This thesis has identified considerable evidence that coalitions of actors sought to gather strength to alter or preserve existing institutional rules and arrangements. While Hall suggests the components of these coalitions may change over time, within UNFCCC climate finance negotiations the North-South divide has been highly prominent in the dynamics of these coalitions, although it cannot be said that every developing or developed country has always been included in such coalitions or fully in agreement with the other countries involved. The ENB record and submissions from Parties to the UNFCCC are not completely comprehensive in recording every single opinion expressed by a Party, nor does every Party speak up to state the support they are lending to

a particular coalition or drive for policy stability or change. Nevertheless, the empirical analysis has shown waves of coalition building, leading up to key negotiations at COP-3 (Kyoto, 1997), COP-7 (Marrakesh, 2001), COP-15 (Copenhagen, 2009) and COP-21 (Paris, 2015).

The analysis in this thesis has shown that many of the changes pursued by coalitions can be understood as challenges to the prevailing interpretation of ambiguous rules and principles from the Convention, rather than changes to the rules themselves. Development of coalitions of actors within the institution, who jointly seek 'particular interpretations of the ambiguous or contested rules of a given institution' (Mahoney and Thelen 2009, p. 11), is stimulated by the lack of clarity. Such instances include a definition of climate finance, the appropriate mix of public and private sources, the relationship between finance needs and obligations, what "new and additional" requires, and the interpretation of CBDR in terms of how finance burdens are distributed amongst different countries. In general, the drive for change has come from developing countries, who have consistently battled to clarify these institutional ambiguities, although in most of these cases the efforts of developing country coalitions have not led to notable clarification of policies in line with their perspectives. The operation and influence of coalitions can be seen in the ongoing prominence of the G77/China, AOSIS and the African Group in particular (discussed further in section 8.3 below), and characterises developing countries' frequent use of normative arguments.

While developing countries have had very few significant successes in terms of altering institutional rules or design in their favour, it cannot be ignored that at times developing countries have been able to initiate some change to institutional rules or policies even when there is some evidence of path dependence and consistent evidence of developed countries benefitting from initial institutional design and subsequent increasing returns to power. This is consistent with historical institutionalist arguments that cohesion amongst coalitions of actors, based on a set of ideas that contradict the established institutional rules, can be at the root of a challenge to existing policy paths by forming "micro-foundations" of gradual change (Blyth et al. 2016). However, the Adaptation Fund's governance arrangements, which this thesis has argued are the most significant example of a developing country coalition successfully achieving a break from an established policy path within UNFCCC climate finance, was potentially only achieved because the USA was not part of the developed country coalition and developed countries had fewer advantages to lose since they were only minor contributors to the fund, so the developing country coalition had a lower threshold to reach to achieve change. The US$100bn finance targets, another key policy, actually reinforced developed countries' control over funding flows. The absence of clear

successes in securing policy change in line with developing countries' preferences and contrary to developed countries interests suggests there are not examples within the analysis of actors forming a "united subordinate group", which results in an increase to the power these actors might normally possess and allows them to bring about change to prevailing institutional arrangements according to their preferences (Mahoney and Thelen 2009).

This thesis has also shown that the most significant institutional changes, such as agreement of the US$100bn finance commitments or the creation of the Adaptation Fund and GCF, came about when a sufficient number of developed countries joined a developing country coalition, permitting change to established rules and structures that had been initiated by developing countries. This ties into Vatn's (2015) assertions that institutional structures constrain the ability of actors to have their concerns accepted as legitimate within the institution. Institutional rules across additionality, sources and assessed contributions meant that developing countries' repeated references to the moral basis for climate finance and developed countries' ethical obligations to provide adequate amounts of new and additional public finance gained little legitimacy in terms of how the UNFCCC functions and how its policies were organised. Effective control over legitimacy of ideas and rule interpretations has usually rested with developed countries, which has been a prominent manifestation of the increasing returns to power that developed countries gained from the Convention and its initial policies, another key element to historical institutionalist analysis of institutional constraint over actor behaviour (Pierson 2004).

8.2.5 Ideas and policy paradigms

The analysis in this thesis has shown that UNFCCC climate finance has been shaped by the underlying paradigm of voluntary contributions, rooted in the same histories of development funding and control of international financial institutions that characterised numerous areas of the Convention. With developed countries more amenable to voluntarily assisting developing countries with the challenge of responding to climate change than being bound by defined moral obligations, institutionalisation of a voluntary paradigm conferred an important advantage to developed countries by framing the goals of policy; UNFCCC climate finance has largely been created according to what developed countries are willing to provide, rather than by any measure of what developing countries require. As negotiations developed, particularly leading up to COP-15 in Copenhagen and beyond, the effect of the paradigm was evident in the move towards conception of the climate finance problem as one of "mobilising" sufficient finance in challenging economic conditions and as it became "unavoidable" that public finance from developed countries would be insufficient. This tied in with development of the broader bottom-up climate governance

regime, which gave the voluntary paradigm in climate finance a stronger institutional foundation.

While the voluntary paradigm appears to have shaped policy outcomes, it has been challenged consistently by developing countries, who have sought to raise the profile of ethical obligations and various normative motivations for policy. As a result, it cannot be said that the voluntary paradigm has comprehensively influenced all policymakers' beliefs about what climate finance policy will or is intended to achieve (May 1992). Although this may lead us to question the influence of the voluntary paradigm on developing countries, the policy history of UNFCCC climate finance has remained consistent with it throughout. There is evidence that developing countries were aware that they were operating under a particular paradigm and were consciously or deliberately trying to alter it or weaken it, but (sometimes simultaneously) also reinforced the paradigm by asking developed countries what they were willing to provide. This suggests that the voluntary paradigm has become part of the institutional structure (Greener 2002), giving advantages to developed countries by shaping which ideas mattered within the policy process (Fioretos 2011).

If developing countries have been successful in laying ideational micro-foundations through sustained battling over rule ambiguities, this may have played a role in stimulating responses from developed countries in the form of either ceding a small amount of ground or initiating the appeasement-like actions described above. This explanation seems plausible in light of the cohesion and longevity of coalitions of developing countries and their consistent use of normative arguments, but the temporal analysis has shown that their limited success, such as securing the series of new funds from the SCCF and LDC Fund through to the GCF, all remained within the voluntary paradigm. Overall, then, rather than bringing about notable institutional change or shifting the balance of power, these ideational processes actually point to developed countries' very successful reinforcement of key institutional structures and rules, limiting the effects of the incremental policy layering or drift that developing countries may have sought with the aim of leading to more fundamental shifts in their favour (Thelen 2004, Béland 2007).

The historical analysis has also demonstrated that by far the most frequent lines of argument used by developing countries have been normative or moral in nature. Often this has involved mention of the harms developed countries have caused through climate change, and their responsibility for rectifying these harms and providing funds for developing countries to deal with the effects of the harms, and highlighting the rights of finance recipients to have a more significant role in the governance process. Framing policy debates in terms of ethical obligations and procedural justice contrasts markedly with developed countries, who refer consistently to what is feasible, realistic and effective when

debating policy options and institutional design. In this kind of language are the key links to established institutional configuration and policy paths, since it shows that developed countries repeatedly base policy debates on the status quo and, by extension, the institutional arrangements that provide them with advantages they seek to protect and reinforce. To counteract the influence of these "sticky" policies and institutional structures, developing countries employ justice-based normative arguments, which this thesis has demonstrated are rarely sufficient to overcome developed countries' material power underpinned by the increasing returns they derive from the institutional structures themselves.

8.2.6 Path dependence

Path dependence is a key mechanism that historical institutionalists seek to identify when assessing the role of institutions in shaping political life. This is one area where the historical analysis was less conclusive, with only limited evidence of true path dependence. Numerous clear policy paths were in evidence, and there is considerable evidence throughout all the areas of analysis that developed countries had a strong incentive to reinforce advantageous paths initiated in the original institutional design (Fioretos 2011), be that in prioritising the GEF, avoiding a defined link between needs assessments and finance requirements, or preventing adoption of additionality criteria or public finance requirements. However, there was less clarity that any of these policy areas had met the relatively high threshold required for true path dependence, where the policies become self-reinforcing, deeply entrenched and difficult for all actors to deviate from (Pierson 2000). In a similar manner to the voluntary paradigm, developed countries continuously vocalised their frustrations with and challenges to many of the policy areas that followed relatively stable paths, from lack of adequate funding to frustrations with the GEF and opaque additionality reporting. This suggests that developed countries were benefitting from structural advantages and positive feedbacks, since the policy positions they advocated were repeatedly the ones that ended up being reflected in stable policy output, but also that the policies themselves had not become so embedded as to lead all actors to be influenced by path dependence.

These findings may be due to the nature of the UNFCCC, with multiple meetings and a new round of policy every year, which made it more difficult to identify true policy stability, particularly since policy discussions broadened to include almost all elements within the UNFCCC's remit in the run up to milestone COP meetings. It appears that the mechanics of the UNFCCC allowed greater scope for repeated reinforcement of policies, which constitute the micro-processes contributing to institutional stability. These have been

documented in all of the areas of analysis, but often constitute the lack of policy, as with additionality, or continued ambiguity of policy, as with public/private sources. In these circumstances, historical institutionalist attention to the interpretation of policy and how coalitions group around different interpretations gives greater insight than path dependence, since developed countries have been able across these areas to lean on institutional rule structures to control the way they interpret established policies. Developed countries have repeatedly shown they will band together into a coalition to drive particular interpretations that favour their underlying interests (Mahoney and Thelen 2009), even if they have demonstrated a degree of variation in the positions they take within the policy process.

8.3 Wider context of North-South global politics

The analysis in this thesis has shown how institutional design and development has been influenced by and contributed to perpetuation of North-South divisions within the UNFCCC climate finance policy process. This section takes these findings from the institutional analysis and the detailed study of actor behaviour within climate finance policy since 1992, and places them in the broader context of North-South global politics and unequal power and economic relationships. This discussion will show how historical institutionalist analysis can expand our understanding of international climate justice and global politics and bring valuable new insight to broader scholarship on North-South divisions and histories, the pursuit of global climate justice, and the politics of environmental governance. Firstly, this section will explain the history and identities associated with North-South divides and interaction, illuminating factors and features such as negotiating coalitions that are enriched by analysis of the events and behaviour in the UNFCCC climate finance policy process. Secondly, the section will discuss how the findings from climate finance are connected to and can contribute to our broader understanding of climate justice issues and developing countries' participation in global governance processes. Thirdly, the section will relate the findings from UNFCCC climate finance to the broader climate finance landscape and political and justice outcomes in other governance institutions based on multilateral environmental agreements. Lastly, the section steps back to look at how this historical institutionalist analysis relates and adds to scholarship on the global political economy and systemic context of North-South relations and hegemonic structures from which the UNFCCC emerged and of which it remains a component.

8.3.1 Developing country identity and coalitions

Williams (2005, p. 53) asserts that 'the Third World coalition is a reaction to the dominance of the industrialized states in world politics' and to a lack of access to and participation in

decision making processes'. These global power structures contribute to the shared identity that connects developing countries in opposition to existing power structures, and these connections have contributed to a fragile but lasting connection between a large and diverse number of developing countries, with groupings such as the G77/China forming to increase influence in the international sphere (Ciplet and Roberts 2017). This drive for greater participation has a basis in an underlying quest for a more legitimate global order, shaped by the collective identity and shared perspectives of developing countries (Najam 2005). Although it is important to avoid seeing North-South political confrontations in climate change or other policy areas solely in terms of a sustained and deliberate challenge to the developed world or the prevailing liberal order (Hurrell and Narkilar 2006, Chan 2013), the findings of this thesis reinforce the notion that North-South identity is an essential component of understanding the way climate politics has functioned within the UNFCCC. Within the climate finance policy area, this thesis has shown that the prevailing international order has been strengthened by the institutional design of the UNFCCC and the rules, norms and positive feedbacks that have been reinforced over time by developed countries and the policy output.

The global south and the G77/China coalition were rejuvenated at the UNCED conference that created the UNFCCC (Najam 2005) and the Convention institutionalised the concept or categorisation of developing countries, and although it used the much-derided annexes for organisational purposes, the category was left as self-defining (Williams 2005). Most developing countries continue to negotiate under the collective banner of the "South" (Najam 2005) and, despite considerable variation amongst its member countries, the bloc's negotiators make a conscious and prolonged effort to 'negotiate as a unified group in order to resist pressure from the developed countries' (Gupta 1999, p. 200), with the G77/China playing a coordinating role as the main vehicle for setting policy positions. This sense of shared identity is borne out by findings of this thesis, with evidence throughout all the analysed policy areas of both variations amongst developing countries and their general unity pushing collectively against developed countries and institutional rule structures.

The increasing divergence of interests and economic and political power among developing countries (Hochstetler 2012, Ciplet and Roberts 2017) might suggest that large developing countries would be increasingly divergent from the G77. Notable occasions of such as at COP-15 in Copenhagen in 2009 when the BASIC group of Brazil, South Africa, India and China was pivotal in formulating the final, very limited Copenhagen Accord with the USA that the G77 (and several other countries) refused to accept, indicate this fragmentation amongst developing country groups (Ciplet 2015, p. 247). However, while the BASIC narrative that 'the increasing risk of climate change is thus caused by a lack of action

from developed countries, which continue to side-step their UNFCCC commitments' has had to evolve as China in particular increases its emissions so significantly, large developing countries have retained the narrative in relation to the necessity of finance from developed countries (Blaxekjær and Nielsen 2015, pp. 756, 761). This can be seen in the BASIC members (BASIC as a bloc has been a minor player in finance negotiations) exerting continued pressure for developed countries to fulfil their finance commitments throughout Chapter 5 and push for additionality in Chapter 6. Large developing countries have continued to gain legitimacy from the alignment of this position with other developing countries' perspectives on climate finance (Ciplet and Roberts 2017, p. 389). The G77 remained aligned with China and India on finance at COP-21 in Paris as large developing countries sought to resist moves by developed countries to bring BASIC and other developing countries into the finance donor base (Dimitrov 2016, pp. 4–5, Okereke and Coventry 2016); such overlapping objectives help to explain the comparative lack of disagreement amongst developing countries and lasting prominence of the G77/China throughout most of the climate finance policy contestations examined in the thesis.

It was in negotiations about the role and proportion of private finance sources within the UNFCCC examined in Section 6.4 that the most significant variation and contradiction was evident in developing countries' priorities and approach to the issue, as they struggled to balance increasing acceptance of the need for a mix of public and private/innovative sources with concern that this would reduce levels of public funding. However, there was no obvious pattern of divergence between large and small or other groups of developing countries and the fragmented Southern perspectives obscured collective unity over the importance of developed countries fulfilling their commitments. This constrained the South as an overall coalition while the North remained relatively unified, so Northern preferences dominated policy making in this area through to the Paris Agreement, building on existing openness to private sources initiated in the Convention. Overall, this thesis has found that the G77/China in particular has remained prominent as a negotiating counterweight to developed countries and the institutional design that has underpinned power inequality in the policy process, suggesting that climate finance is one of the elements slower to change as 'the North–South divide is only evolving, not disappearing' (Gupta 2015, p. 151). Even as blocs such as AILAC break with G77 solidarity to push for low-carbon development at home and globally (Ciplet and Roberts 2017, p. 382), they are unlikely to disagree with broader G77 efforts to hold developed countries to account for the commitments they have made.

As discussed above, all four analytical themes show that within climate finance the institutional rules and structures brought many advantages for developed countries; despite

grouping together to increase their negotiating power, developing countries have largely been ineffective in counteracting these power inequalities and achieving policies that align with their needs and perspective of fairness. Developing countries have demonstrated a pattern of using normative arguments within climate finance policy negotiations, which reflects the centrality of the normative dimension to the origins and narratives of the broad coalition of developing countries across global politics, and the institutionalisation of finance as a North-South issue in the Convention (Williams 2005). Richards' (2001) argues that it is the negotiation process and lack of resources that led developing countries to focus on justice and North-South issues rather than material interests in a "realist" fashion, and that this has led to weak negotiating by developing countries and outcomes that favour the interests of developed countries (2003). While various studies have examined new developing country coalitions and mixed blocs that cross the North-South divide and which may lead to new bargaining dynamics (Blaxekjær and Nielsen 2015, Costantini et al. 2016), this thesis emphasises the role of institutional design and its effect on power distribution in disadvantaging developing countries in material terms. The continued relevance of the North-South divide in finance negotiations indicates the lasting contribution of institutional design and development to the shared identity and history of developing countries and the prominence of the G77/China in this area. Since the policy contestations and associated institutional structures examined in this thesis are far from resolved (Sharma 2017, Alexandraki 2019), institutional factors are likely to continue to shape negotiating dynamics within the institutional policy process and constrain developing countries' achievement of outcomes in line with their conception of climate justice and should not be discounted as coalitions shift within climate politics more broadly.

8.3.2 *Matters of justice*

Developing country participation in global political processes is constrained by a lack of delegates and other procedural justice issues (Grasso and Saachi 2011, Okereke 2018). The numerous COP and GEF meetings every year offer greater opportunity for developing country participation than many other governance regimes (Engberg-Pedersen 2011). At the same time, this schedule places great demands on developing country resources and this thesis has shown that on-paper influence within the policy process does not, in the case of the UNFCCC, translate into concrete, material influence over policy outcomes and institutional design. The "Southern" identity is in part borne out of a collective desire for greater influence and participation in political decisions, and the long history of injustice associated with Northern domination of global political systems alongside Southern exclusion and unequal economic relationships (Najam 2005, Parks and Roberts 2010). Their

consistent lack of delegates constrains developing countries' ability to use proactive negotiating strategies (Richards 2001) and overcome the weaker bargaining position that the institutional form and rules reinforce.

Various scholars have discussed how perceptions of fairness and worldviews affect a country's behaviour within a policy process (Roberts and Parks 2007, Pittel and Rübbelke 2013), building our understanding of developing countries' shared identity and the actions seen within political institutions. When these perspectives are examined, climate policy negotiations can be seen as 'the site for sorting out the claims of vulnerable developing countries for restitution for climate change impacts from rich, high-emitting, developed countries', and 'insufficient sensitivity to this normative basis can lead to rejection of knowledge claims by some parties (typically the developing countries), as well as stalemate, discord, and distrust' (Moore 2012, p. 173). The three historical analytical chapters in this thesis have found considerable evidence of this stalemate, discord and distrust, with institutional design, policy paradigms and positive feedbacks reinforcing unequal power and influence. This has perpetuated North-South divisions over the life of the UNFCCC rather than leading to policy outcomes that unify countries behind common climate finance goals and mutually-satisfactory burden-sharing arrangements.

Part of these divisions can be attributed to the nature of climate finance, since even as mitigation has been accepted as more of a sliding scale of effort with the Paris Agreement, having moved on from the Convention and Kyoto Protocol's annex split (Okereke and Coventry 2016), finance remains much more divided with a stronger expectation that funding should be provided by developed countries rather than developing countries, even if the lively debate surrounding the extent to which such flows are supplemented by private sources is ongoing. The norms that frame climate change adaptation and associated funding as restitution for climate harms are counteracted by donor-led, development assistance norms and since developing countries have the most to gain materially from the former framing, justice-based claims have often been dismissed as self-interest (Moore 2012). This has been substantiated by the findings of this thesis, with the temporally constructed narratives adding new insight to constructivist claims about how more powerful actors resist the institutionalisation of fairness or restitution norms. This is consistent with trends across other multilateral environmental agreements, where action in response to environmental problems has been pushed southwards (Najam 2002), and with understanding of ongoing unity amongst developing countries, which remains underpinned by a sense of injustice despite disagreements discussed above and the changing role of larger developing countries such as the BRICS nations (Engberg-Pedersen 2011).

8.3.3 Broader climate finance landscape and other multilateral environmental agreements

While climate finance is a prominent pillar of the UNFCCC regime, finance channelled through UNFCCC funds only makes up a minor proportion of overall global climate finance flows (Buchner et al. 2017). Confusion and controversy around the definition of climate finance and how to determine what should be counted when seeking to monitor and evaluate flows and contributions is a feature of the broad landscape of public, private, bilateral and multilateral climate finance (Buchner et al. 2015). Likewise, the trend towards voluntary and private finance seen within the UNFCCC is replicated in other fora, such as the Rio+20 conference in 2012, where governments, stakeholders, networks and partnerships pledged US$636bn collectively (Bernstein and van der Ven 2017). In their Gramscian analysis, Ciplet et al. (2015, chap. 4) suggest that the pledges made by developed countries represent limited concessions designed to reinforce prevailing hegemonic global structures, echoing the pattern of institutional change this thesis has identified. Engberg-Pedersen (2011, p. 28) argues that the proliferation of multilateral and bilateral funds across the climate finance landscape seems likely to replicate the donor-recipient tradition, echoing what this thesis has found with UNFCCC funds, and he notes that even in this broader landscape the Adaptation Fund stands out as an anomaly and may become simply a 'footnote in history'. The findings in this thesis reinforce this broader research, suggesting that what developing countries have experienced within the UNFCCC is symptomatic of the wider climate finance landscape, and attention to institutional structures has shown that the UNFCCC has reinforced these wider inequalities rather than providing a more level playing field.

The North-South dynamic is by no means unique to climate change or climate finance negotiations, and the shared identity amongst developing countries that is strongly in evidence throughout the UNFCCC climate finance negotiations is also a factor in other areas of negotiation. This can be seen in policy struggles that echo those that this thesis has examined within UNFCCC climate finance. For example, the findings in this thesis echo Falkner's assertion that in the closely-related UNFCCC loss and damage negotiations, 'as so often in the protracted climate negotiations, success for the Global South came at the cost of legal ambiguity and weak commitments' (Falkner 2019, p. 140). In the Montreal Protocol ozone regime, the Multilateral Fund created to compensate developing countries is based on incremental costs, in a similar way to most UNFCCC climate finance, but the Fund was created with a governance system that requires majorities from both donors and recipients for decision making, allowing both sides to block. In addition, contributions to the fund are determined by the assessment scale used for the UN; while this did not entirely resolve the

question of voluntary vs obligatory contributions, the scale allowed for greater predictability and the implication of commitment that has been lacking from UNFCCC climate finance (Joffe et al. 2013).

The Multilateral Fund from the ozone regime is the most prominent independent fund created for a MEA and often seen as a model by developing countries (Ackerman 2009), but the Convention on Biological Diversity (also agreed at UNCED) and the 2001 Stockholm Convention on Persistent Organic Pollutants (POPs) mirror the UNFCCC by making use of the GEF (Oberthür 2002). Kohler and Ashton (2010) outline the negotiation process for the POPs treaty, which involved a similar expectation amongst developing countries that additional funding would be forthcoming, due to the higher costs involved in using non-polluting chemicals. North-South conflict emerged over financing, not least due to developed countries' efforts to designate the GEF as the financial mechanism for the POPs convention, in contrast to developing countries' preference for a new fund in the style of the Montreal Protocol. Agreement for the POPs convention to engage the GEF was only reached due to use of the word "interim", which parallels the negotiations leading to selection of the GEF as interim operating entity for the UNFCCC financial mechanism.

Najam (2002) reports that the additionality principle that was part of the original "Rio bargain" across the three treaties agreed at the UNCED in 1992 was quickly abandoned for the desertification regime and it was made clear that no new funds would be made available by donor countries. This caused similar controversy to that seen in this thesis' findings from the voluntary paradigm, prominence of the GEF replenishment process and lack of detailed additionality rules in the climate finance policy process, and echoes the lack of trust that developing countries have in developed countries' willingness and ability to keep their funding promises. Additionality has since been increasingly replaced with market forces and efficiency as means to deliver finance promises across all of the Rio multilateral environmental agreements (Najam 2002, p. 47), which this thesis has corroborated in the case of UNFCCC finance by illuminating how institutional design and development has contributed to developed countries' influence over finance flows and rules.

With similar experiences and outcomes in a variety of other policy areas and governance regimes, it is evident that the strategies and priorities of developed countries seen throughout the history of UNFCCC climate finance are not unique to this policy area. However, this thesis has added to broader understanding of these experiences and outcomes by using a novel institutional perspective to establish how the institutional design of the UNFCCC, which has proven so influential in shaping climate policy and North-South negotiating dynamics, was a product of a landscape of power inequalities across global governance and contributed to developed countries consistently and successfully

reinforcing their interests by capitalising on advantageous policy paths, rule ambiguity and policy paradigms.

8.3.4 Political economy – power, colonialism and resistance

Scholars of international political economy have asserted that climate governance is rooted in causation and dependency, involving the institutions set up to manage the contradictions of capitalism and ideas of green growth, for example, which shapes governance and policy options (Newell 2015). It follows then that the design of global governance institutions and the power dynamics within them are at least partly a symptom of this broader context of capitalism and globalisation, but this thesis has shown how the institution itself can exacerbate or have an effect beyond the initial conditions and prevailing power dynamics of which the institution is a product. Certainly the historical analytical narratives have identified consistent evidence that the institutional design, with positive feedbacks and layering of rules, has contributed to developing countries giving their consent to a finance regime that largely preserves developed country control and thus fails to achieve significant alteration to the existing donor-dominated development sector and governance systems. This is consistent with broader analyses of power and consent within climate governance and the reinforcement of hegemony through the negotiation of weak rules that are seen by developing countries as more favourable to no rules at all (Ciplet 2015).

These findings are underpinned by a general resistance amongst developed countries to reshaping the incumbent global system and its institutions (Rayner and Okereke 2007), with global elites manoeuvring around challenges to the existing carbon-based economic and development system and opposing 'demands for policies that would more profoundly upset the existing order' (Newell 2015, pp. 31–32). These characteristics of the wider political economy of global governance are reflected in the resistance that developed countries have demonstrated throughout the climate finance policy process, identified within this thesis and by other scholars such as Ciplet et al. (2015, chap. 4). In turn, this resistance to change has contributed to developing countries' long-held distrust of the motivations and promises of the Global North and reinforcement of the North-South divide that stretches back to colonialism and the origins of global power inequalities (Ghosh and Woods 2009, Gupta 2015). Resistance is also seen in developing countries' frustration with the voluntary ODA system and their consistent drive to separate climate finance, with an ethical basis highlighted by developing countries, from existing ODA flows related to the 0.7% of GDP commitment under the UN. This thesis has shown that developing countries have tried, but failed, to achieve institutional rules that would enforce this separation and additionality effectively, rather than just in principle, and as a result UNFCCC climate

finance remains deeply affected by the lack of trust that developing countries have in pledges made by developed countries.

Findings in this thesis are therefore consistent with broader conceptualisations of global governance as a site for challenge to or reinforcement of existing economic structures, such as Carrapatoso and Kürtzinger (2014), and reinforces their pessimism that substantial systemic change is not realistic when consensus over policy in the UNFCCC is intertwined with preservation of existing economic and development paradigms. Rather than being integrated successfully into the broader sustainable development agenda, as developing countries had intended in advance of the UNCED in 1992 (Ciplet and Roberts 2017, p. 373), climate finance remains largely subject to the will of developed countries and is consistent with general trends in global governance that find that institutionalisation of restitutive norms is a rare occurrence (Moore 2012). This thesis has shown that the climate finance policy process has contributed to, rather than diffused, the broader lack of trust in climate governance, which can be seen as impeding potential future global governance co-operation and reform (Engberg-Pedersen 2011).

8.4 Conclusion

This thesis has addressed a gap between climate justice and climate politics research by asking how the design and institutional rule structures of the UNFCCC have shaped and constrained the politics and policymaking that have taken place within it. The analysis has extended the use of historical institutionalism and shown that it can offer useful insight into the significance and influence of institutional structures on the outcomes experienced by different groups of actors within the policy process. Even though the UNFCCC's treaty-based format with annual negotiations meant that the policy process was more open and rapidly-evolving than domestic bureaucratic institutions, historical institutionalism has been valuable for explaining how developed countries gained significant advantages from the Convention that incentivised them to reinforce institutional rules and structures, and illuminating the positive feedbacks and policy paradigms that underpinned their power to do this. The historical institutionalist analysis has shown how North-South division often manifests itself in coalitions pushing for or against change to existing institutional rules and structures that are aligned with Northern interests and rule interpretations, such as the prominence of the GEF. Rooted in the Convention, the voluntary paradigm and vague policies concerning additionality and finance sources allowed developed countries to dominate the policy process as they often approached negotiations from a position of seeking to maintain the institutional status quo.

Developing countries were immediately disadvantaged by the manner in which the creation and content of the initial institutional design reflected and institutionalised North-South power imbalances and the prevailing landscape of international development finance. Lacking material power, developing countries most frequently used normative and ethical language in attempts to alter institutional rules and structures, contributing to their shared identity as challengers of institutional structures both within and beyond the UNFCCC. This position of usually having to challenge the established status quo constrained developing countries when seeking policy in line with their preferences and interests, since it meant that their arguments for normative or needs-based climate finance and alternative funding mechanisms often failed to gain legitimacy. While the continuous challenge demonstrated by developing countries suggests true path dependence was not part of UNFCCC climate finance policy, the advantage gained by developed countries from the Convention and rule interpretation is an important factor in the ongoing policy stability. Developed countries have accepted certain changes to institutional structures and policies in line with developing country preferences, but analysis of these structures and developed countries' changing incentives has shown that it is only in the case of the Adaptation Fund's governance that developed countries did not obtain some form of benefit from agreeing to the changes.

Historical institutionalism has offered valuable insight into the structural factors that have underpinned the North-South split that has characterised climate finance negotiations and strengthened the power that northern countries have held and exercised consistently within the policy process. Developing countries' shared normative ideas and justice claims shaped both their identities and collective negotiating strategies, while the lack of institutionalisation of these normative claims was an important factor in developed countries retaining greater material power within the institutional boundaries. This thesis has shown how institutional factors such as the voluntary paradigm and prominence of the GEF have exacerbated Southern distrust of global governance processes and Northern countries' willingness to live up to their commitments, let alone achieve justice as perceived by Southern countries. While UNFCCC climate finance can be seen as a site of Southern challenge to broader North-South power structures, this thesis has shown that institutional design and development have replicated and reinforced the advantageous position of Northern countries. Consequently, little fundamental change has been seen in climate finance policy and the institutional structure remains as beneficial for developed countries as the Convention, reinforcing wider North-South inequalities and the exclusion and unjust policy that developing countries have experienced in other governance institutions and multilateral environmental agreements.

9. Conclusion

9.1 Thesis overview and key findings

This thesis has identified a gap in the existing climate justice and governance literature concerning the influence of institutional factors in shaping the behaviour of actors within and the policy emerging from the UNFCCC climate finance policy process. The thesis has added valuable new insight to that gap by using a historical institutionalist approach to examine in detail the creation of the UNFCCC and the progression of climate finance policy making, investigating how the original institutional design reflected broader landscapes of injustice and unequal power distribution, and how this design influenced the subsequent development of policy layers and rule structures that in turn affected actors' power, interests, ideas and coalitions, constraining policy making and shaping the nature and justice of outcomes. Motivated by the injustices that characterise the problem of climate change and the North-South divisions and power imbalances that characterise climate change politics and climate finance, the thesis adds new institutional factors to broader understanding of how countries from the Global South have experienced and participated in climate governance and helps to explain the substance and justice of outcomes from the climate finance policy process in relation to broader North-South histories and politics.

Part I of the thesis situated the project within existing literature and introduced the theoretical approach and research design. Chapter 2 introduced the core injustices of climate change and argued that climate finance is central to understanding how justice is at the heart of disagreement over how to formulate a co-ordinated global response to climate change. These injustices stem from North-South inequalities and divisions within global economic structures and political relationships, and have been widely studied in the politics of global climate change governance processes. The chapter also argued that injustice and the North-South split are at the core of climate finance, both in terms of why it is needed and the progression of negotiations over what is required and which countries should provide it. The key contestations of climate finance policy and the progression of negotiations were summarised in the chapter and placed in the context of the broader landscape of climate finance. This landscape extends beyond the UNFCCC and has important links to the development assistance sector that has been a strong influence in the North-South politics of UNFCCC climate finance.

Chapter 3 introduced institutions, reviewing existing international relations and international political economy literature on how international institutions are created and the role they play within global politics and environmental governance. The chapter argued

that there is an important gap in the literature concerning the design and development of institutions and their influence on actors within them over time. Having explained the form and broader context of the UNFCCC as a governance regime based on a multilateral environmental agreement, the chapter argued that historical institutionalism is uniquely placed to balance the focus on rational self-interest and material power on the one hand, and ideas and norms on the other, which characterise key theoretical schools within international relations. The history and development of historical institutionalism was outlined, and the chapter continued by arguing that historical institutionalism's attention to institutional design, power, stability, change, coalitions and ideas make it ideal for assessing the institutional development of the UNFCCC and its influence on North-South politics and policy outcomes. Chapter 4 presented the methodology, sources and research design for the project, explaining how themes and mechanisms from historical institutionalism would be employed to facilitate working with such a large amount of source data from policy documents and negotiation commentary.

Part II of the thesis presented four temporally constructed narratives in three chapters, which were the result of detailed and systematic processing of the data outlined in Chapter 4. Chapter 5 focused on the voluntary paradigm that was a direct carry-over from the development assistance sector. The chapter argued that vague rules in the Convention left developed countries able to act according to their expectation of control over the amounts of finance they provided and the timescales and monitoring of finance flows. Developing countries were put in the position of having to overcome this initial institutional design, which was reinforced by subsequent institutional links with the GEF, meaning the institutional structure enhanced developed countries' power within negotiations and contributed to developing countries' failure to overcome developed countries' advantageous position and secure funding related to their needs or based on a calculation underpinned by a clear and agreed normative principle. The chapter further argued that policy that may be viewed externally a success for developing countries within the policy process, such as the US$100bn commitment at Copenhagen, actually represents incremental institutional change that developed countries facilitated to protect the underlying advantageous institutional structure.

Chapter 6 examined two of the key contested areas within climate finance, both of which are directly linked to normative claims made by developing countries. An expectation of additionality was featured in the Convention, whereas the Convention was explicitly open to all sources of finance, but in both cases vague initial clauses gave a structural advantage to developed countries that enhanced their resistance to the clearer rules and procedures demanded by developing countries. Additionality was already a prominent concern from the

development assistance system, and developed countries prevented consensus on a baseline from which to calculate additionality or a definition of climate finance that would enhance tracking of climate finance by the UNFCCC. In contrast, the chapter argued that the increasing prominence of private sources over the course of UNFCCC negotiations demonstrates how the initial configuration of the institutional structure acted as a constraint on developing countries' efforts to gather a coalition strong enough to secure new rules, which would quantify the proportion of public funding that developed countries should provide and prevent the restitutive element of climate finance being passed on to the private sector. With both additionality and sources, the chapter found very little institutional change and clear, sustained advantage for developed countries from the institutional structure.

Chapter 7 focused on the financial mechanism of the UNFCCC, in terms of the initial selection of the GEF and creation of subsequent funds. The chapter found that institutional links with the GEF were significant in shaping the UNFCCC's funding mechanisms according to the priorities of developed countries, since the GEF was created and largely controlled by them. The prominence of the GEF made it more difficult for developing countries to capitalise on the opportunity for more balance governance of the SCCF and LDC Fund. In contrast, the chapter argued that the governance structure of the Adaptation Fund was the most significant example of developing countries succeeding in gathering a coalition strong enough to implement new institutional rules that at least partly matched their priorities. This was explained by the absence of the USA from the policy process and the relatively minor proportion of funding that would come from developed countries, which reduced the threshold for change that the developing country coalition needed to reach. Other developments in the financial mechanism were consistent with findings from the voluntary paradigm in the way that incremental institutional change was facilitated by developed countries and consistently reinforced underlying advantageous structures, preventing developing countries actually securing meaningful achievement of their policy priorities and objectives.

Part III of the thesis summarised and discussed the project's findings and includes this concluding chapter. Chapter 8 began by drawing together the four policy areas examined in Part II, arguing that analysis of initial institutional design in the Convention has been one of the most fruitful parts of the project. All four of the examined policy areas found evidence of institutional creation reflecting broader power dynamics and North-South divisions in the institutional structure. Developed countries derived numerous advantages from the institutional structure that enhanced their power and influence in subsequent negotiations, helping them to limit changes to policy paths and rule structures, and

influence the timing and substance of alterations when they did take place. The chapter argued that the ongoing struggle by developing countries to change institutional structures according to their interests and normative perspectives can be characterised according to the view of coalitions of actors seeking to gather strength to overcome the constraints of existing institutional structures put forward by Hall (2016), putting developing countries at a consistent power disadvantage as developed countries usually sought to reinforce their advantageous position derived from initial institutional design and subsequent policy paths.

There was less evidence of true path dependence in the four policy areas than might have been expected, but this may be a product of the continuous nature of the UNFCCC policy process with new layers added each year and several periods of expansive negotiation leading up to milestones COPs. Finally, Chapter 8 placed these findings and insight into the broader context of North-South politics and global governance studies, arguing that the research has provided a new lens through which to understand the longevity and strength of developing country coalitions within negotiations and why notions of justice advocated by developing countries have not been integrated effectively into climate policy. Although the rise of large developing countries and new negotiating coalitions has altered the perspectives and co-ordination of developing countries in the UNFCCC policy process, climate finance has seen less of this evolution and the North-South dynamic remains prominent. This reflects the broader climate finance landscape and global macro-level systems in which the UNFCCC sits, and the thesis has shown that institutional factors are important in understanding how these broader systems influenced the internal politics of the UNFCCC policy process.

9.2 Value and implications of research outcomes

This thesis has successfully met its research objectives by undertaking detailed analysis of the historical progression of climate finance negotiations and policy and assessing the presence and influence of institutional factors on actor behaviour within the policy process. The original contributions of the thesis are found, firstly, in its extension of the use of historical institutionalism to analyse the UNFCCC, an international governance institution so far overlooked as an object of systematic research of this nature. Secondly, the thesis contributes original insight into the role and influence of institutional design, structure and development on the climate finance policy process, in particular the perpetuation of North-South power imbalances and the challenges developing countries have faced shaping their policy in line with their material interests and notions of climate justice. Overall, the historical institutionalist analysis has shown that the institutional design and development

of the UNFCCC should be considered an important factor in explaining subsequent policy outcomes and the interaction between countries as they negotiated in pursuit of priorities and justice.

The thesis has extended the application of historical institutionalism to governance institutions at the international level, following encouragement by Fioretos (2011) and Hanrieder (2014) amongst others, and focusing on precisely the sort of non-standard institutional context that Farrell and Finnemore (2016, p. 576) suggest will 'help establish the scope conditions of historical institutionalism's existing toolbox'. The data sources proved rich and extensive, facilitating the detailed study of how countries behaved within negotiations and of the evolution of policy that are required for the temporal analysis central to historical institutionalism. While this enabled production of the temporally constructed narratives and the analysis central to the thesis, the volume of material was so large that processing it adequately acted as a constraint on a broader search for data and thus building an even more accurate picture of events. This should be taken into consideration by scholars seeking to investigate the institutional design and development of other areas of UNFCCC policy or other regimes based on multilateral environmental treaties, which also have multiple rounds of negotiation each year and are similarly well-documented.

The multilateral environmental treaty basis of the UNFCCC, which involves a negotiating forum with almost continuous meetings and policy making in annual cycles, also presented some challenges for the application of historical institutionalism, but overall the thesis has shown that historical institutionalist tools are useful when considering governance institutions based on multilateral environmental agreements. Opening up broad swathes of policy during key negotiation periods such as the AWG-LCA process before Copenhagen and ADP process before Paris created scope for debate over policy and challenge to the status quo that is likely to be unusual in comparison to domestic policy institutions and principal/agent intergovernmental organisations. While these regular opportunities to re-negotiate existing policies made it difficult to clearly identify true path dependence, where all parties are constrained by the layers of policy on a particular path (Mahoney 2000, pp. 508–509), the thesis has shown that policy layering and the reinforcement of positive feedbacks has made it more difficult for actors to alter these paths. In addition, the concept of coalitions of actors trying to build momentum of sufficient strength to alter institutional rule structures (Thelen 2004, Hall 2016) was particularly fruitful in explaining the consistent interplay between developed and developing countries seeking to either change or reinforce policies rooted in the Convention. This is of particular relevance to the UNFCCC's one-country-one-vote negotiating forum with almost 200 Parties and similar fora in comparable governance regimes, showing that historical institutionalism

is well-suited to offer useful insight into 'institutional friction between formal rules and material power' in these institutional contexts, as Hanrieder suggests (2014, pp. 324 & 326).

The thesis has also shown that historical institutionalism's temporal perspective and focus on initial institutional design has considerable potential for adding to our understanding of how international environmental governance regimes distil aspects of global political systems and inequalities, as put forward by Thelen and Steinmo (1992). The thesis found strong evidence that the Convention's rules and, in several cases, rule ambiguities, conferred advantages on developed countries that reflected inequalities in participation and power from the development assistance system and global economic governance as a whole. Historical institutionalist analysis helped to illuminate how these initial institutional features became structural, to a greater or lesser extent, and how they contributed to the enduring prominence of North-South division over time. As a result, the analysis confirmed broader characterisations of climate politics and added a new institutional angle to existing international political economy and international relations research.

This project also makes a significant contribution in its systematic and detailed explanation of how developing countries faced an uphill struggle from creation of the UNFCCC onwards. In all the contested policy areas under examination, key clauses in the Convention were aligned with developed countries' preferences. This had a lasting impact by creating institutional rules structures that developed countries usually sought to reinforce and developing countries sought to change or clarify, which added to developed countries' already greater material power. The exercise of power in line with institutional structures and the lack of traction within the policy process for ideas held by developing countries are useful additions to existing international relations and global environmental governance studies of UNFCCC negotiation dynamics (Brenton 2013, Brunnée and Streck 2013). These findings were part of the success of this thesis in showing that historical institutionalism can be used to bridge the rationalist and constructivist perspectives from international relations theory when investigating the role of an international institution, since this thesis has shown that actors' power, interests and ideas have all been influenced by institutional design and development over time, and likewise have shaped how that design and development took place.

In summary, the findings of this thesis add a constructive new institutional angle to explanations of why climate governance as a whole, and climate finance in particular, remain heavily criticised for failure to generate a response to climate change and levels of climate finance that can be widely deemed adequate. In identifying various institutional mechanisms that contributed to the broader North-South features of the climate finance

policy process, this thesis offers a valuable contribution to existing scholarship on this aspect of global climate politics and ongoing contestation over climate justice within the UNFCCC (Roberts and Parks 2007, Friman and Linnér 2008, Gupta 2015). With the contested policy areas examined in the thesis remaining unresolved at the time of writing (Weikmans and Roberts 2019) and key justice concerns and burden sharing debates still a central feature of climate change politics (Falkner 2019), the research presented here is a timely and valuable addition to broader scholarly efforts to understand and engage with climate finance, governance and North-South divisions. On the basis of this original contribution, the next section will set out suggestions for future research and building on the historical institutionalist analysis in this thesis.

9.3 Opportunities for future research

This thesis has successfully extended the use of historical institutionalism to an international governance institution based on a multilateral environmental agreement, but is only a starting point in this endeavour and both its findings and limitations prompt further investigation and refinement. In terms of the UNFCCC, the obvious next step would be to conduct a similar form of analysis for other policy areas, principally mitigation and adaptation but also including capacity building, technology transfer and loss and damage. Each of these areas has its own origins, evolution and contestations, but all are interconnected so agreement on policy in one area is often likely to be linked to bargaining in another. A comprehensive understanding of the institutional influence on North-South dynamics and policy outcomes would necessarily include all areas within the UNFCCC remit and the implications of concurrent negotiations in these different areas. Such a comprehensive project would be extremely large and lengthy, but would facilitate a greater understanding of how institutional influence varies across these areas and how they are interconnected within the overall process of bargaining and compromise that produces policy over time.

With issues such as additionality and defining climate finance unresolved as of COP-24 in December 2018, as well as a relative lack of ambition on finance transparency that means the Paris Agreement is not being fully implemented and ongoing disconnect between finance targets, roadmaps for delivery of the US$100bn annual target and little progress on increasing the target, the contested areas of policy examined in this thesis remain very much unresolved. The thesis has engaged relatively briefly with the changing dynamics of coalitions within the negotiations (Blaxekjær and Nielsen 2015, Ciplet and Roberts 2017), particularly in terms of the rise of large developing countries such as the BASIC bloc and new negotiating groups that bridge the North-South divide, but also the

changing nature of the North-South split under the NDC regime that replaced the clear annex-based separation between developed and developing countries within policy. Future research could build on the institutional perspective central to this thesis to examine how structures, policy paths and their impact on power distribution and legitimacy of ideas are affecting and will continue to affect policy making as countries keep pursuing their material normative aims within the context of the NDC system, while the landscape of developing countries and blocs continues to evolve and potentially become more significant within climate finance.

In terms of comparison and North-South dynamics, historical institutionalist analysis could also be applied to other multilateral environmental treaty regimes, notably the ozone regime based on the Vienna Convention and Montreal Protocol, which has been considered an influential forerunner to the UNFCCC regime but also more successful in its policy outcomes (Bodansky and Rajamani 2018). Many environmental problems have roots in North-South relationships and economic histories, and the governance regimes are similarly affected by these origins and have subsequent influence on how developing countries are able to pursue their interests and realisation of environmental justice. Research into more regimes would allow comparison between their institutional influence, and would bring the potential to produce recommendations for the design of future multilateral environmental agreements and measures or strategies that could help developing countries alter institutional structures in the pursuit of more adequate and just policy outcomes.

This thesis placed its design and findings in the context of broader research on macro-level economic and political systems, in particular the development assistance system, and sought to show how features of these systems were distilled into the design of the Convention. Future research could focus on this more directly, perhaps in the form of a systematic comparison of how institutional design of different governance regimes reflected the macro-level context in which they originated. Likewise, the implications of the findings in this thesis, and similar historical institutionalist research into other regimes, could be taken further by seeking to reverse the focus of study and show how the development of an institution over time, and the way it affects relationships and interaction between states within it, can inform specific theoretical perspectives on macro-level systems. Each global governance institution operates with its own internal structure and development on the one hand, and on the other hand is part of an interconnected world with a multiplicity of governance regimes and state relationships and power imbalances. Using historical institutionalism to open up the role of the institution itself can add to our broader

understanding of how macro-level systems and the network of governance regimes functions and shapes political behaviour and outcomes.

Overall, this thesis adds to the growing use of historical institutionalism to assess governance institutions at the international level (Castro et al. 2014, Prys-Hansen and Franz 2015, Nasiritousi and Linnér 2016), and to existing perspectives on North-South relationships and the realisation of climate justice in the global governance regime (Mickelson 2009, Okereke 2010, Okereke and Coventry 2016). The thesis has illuminated mechanisms that have reinforced injustice and inequality in institutional design and shown how these features of the institutional structure have affected the way countries have interacted in the policy process and the output from that process. Climate justice and greater equality between the Global North and South in both participation in and outcomes from global governance regimes remain vital elements in the broader pursuit of global justice, sustainable development, and protection of vulnerable communities and the natural environmental itself. This thesis has made a valuable new contribution to this pursuit and our understanding of international institutions and climate change politics, and points to ways in which scholars can continue to research features and failures of governance regimes and encourage positive change and just outcomes.

Appendix I: UNFCCC documentation

UNFCCC documents can be retrieved from this portal by searching for the relevant "document symbol": https://unfccc.int/documents

The list below records all the UNFCCC documents referenced or actively used in the thesis; others were consulted and not deemed to provide relevant information.

Document Symbol	**Title/Meeting**
FCCC/INFORMAL/84	United Nations Framework Convention on Climate Change

Reports of the Conference of the Parties, Part Two: Action Taken by the Conference of the Parties

(COP decisions are reported in Part Two of these reports)

Document Symbol	Title/Meeting
• FCCC/CP/1995/7/Add.1	• COP-1, Berlin, 28 March to 7 April 1995
• FCCC/CP/1996/15/Add.1	• COP-2, Geneva, 8 to 19 July 1996
• FCCC/CP/1997/7/Add.1	• COP-3, Kyoto, 1 to 11 December 1997
• FCCC/CP/1998/16/Add.1	• COP-4, Buenos Aires, 2 to 14 November 1998
• FCCC/CP/1999/6/Add.1	• COP-5, Bonn, 25 October to 5 November 1999
• FCCC/CP/2000/5/Add.2	• COP-6 part I, The Hague, 13 to 25 November 2000
• FCCC/CP/2001/5/Add.1 & Add.2	• COP-6 part II (COP-6.bis), Bonn, 16 to 27 July 2001
• FCCC/CP/2001/13/Add.1, Add.2 & Add.3	• COP-7, Marrakesh, 29 October to 10 November 2001
• FCCC/CP/2002/7/Add.1, Add.2 & Add.3	• COP-8, New Delhi, 23 October to 1 November 2002
• FCCC/CP/2003/6/Add.1 & Add.2	• COP-9, Milan, 1 to 12 December 2003
• FCCC/CP/2004/10/Add.1 & Add.2	• COP-10, Buenos Aires, 6 to 18 December 2004
• FCCC/CP/2005/5/Add.1 & Add.2	• COP-11, Montreal from 28 November to 10 December 2005
• FCCC/CP/2006/5/Add.1	• COP-12, Nairobi, 6 to 17 November 2006
• FCCC/CP/2007/6/Add.1	• COP-13, Bali, 3 to 15 December 2007
• FCCC/CP/2008/7/Add.1	• COP-14, Poznan, 1 to 12 December 2008
• FCCC/CP/2009/11/Add.1	• COP-15, Copenhagen, 7 to 19 December 2009
• FCCC/CP/2010/7/Add.1 & Add.2	• COP-16, Cancún, 29 November to 10 December 2010
• FCCC/CP/2011/9/Add.1 & Add.2	• COP-17, Durban, 28 November to 11 December 2011
• FCCC/CP/2012/8/Add.1, Add.2 & Add.3	• COP-18, Doha, 26 November to 8 December 2012
• FCCC/CP/2013/10/Add.1, Add.2 & Add.3	• COP-19, Warsaw, 11 to 23 November 2013
• FCCC/CP/2014/10/Add.1, Add.2 & Add.3	• COP-20, Lima, 1 to 14 December 2014

• FCCC/CP/2015/10/Add.1, Add.2 & Add.3	• COP-21, Paris, 30 November to 13 December 2015

Reports of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol

(CMP decisions are reported in Part Two of these reports)

• FCCC/KP/CMP/2005/8/Add.1, Add.2 & Add.3	• CMP-1, Montreal, 28 November to 10 December 2005
• FCCC/KP/CMP/2006/10/Add.1	• CMP-2, Nairobi, 6 to 17 November 2006
• FCCC/KP/CMP/2007/9/Add.1	• CMP-3, Bali, 3 to 15 December 2007
• FCCC/KP/CMP/2008/11/Add.1 & Add.2	• CMP.4, Poznan, 1 to 12 December 2008
• FCCC/KP/CMP/2009/21/Add.1	• CMP-5, Copenhagen, 7 to 19 December 2009
• FCCC/KP/CMP/2010/12/Add.1 & Add.2	• CMP-6, Cancún, 29 November to 10 December 2010
• FCCC/KP/CMP/2011/10/Add.1 & Add.2	• CMP.7, Durban, 28 November to 11 December 2011
• FCCC/KP/CMP/2012/13/Add.1, Add.2 & Add.2/Corr.1	• CMP-8, Doha, 26 November to 8 December 2012
• FCCC/KP/CMP/2013/9/Add.1	• CMP-9, Warsaw, 11 to 23 November 2013
• FCCC/KP/CMP/2014/9/Add.1	• CMP-10, Lima, 1 to 14 December 2014
• FCCC/KP/CMP/2015/8/Add.1 & Add.2	• CMP-11, Paris, 30 November to 13 December 2015

Submissions from Parties and other documents

• FCCC/AWGLCA/2008/MISC.1	• Views regarding the work programme of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention
• FCCC/AWGLCA/2010/8	• Text to facilitate negotiations among Parties
• FCCC/AWGLCA/2010/MISC.6/ • Add.1	• Preparation of an outcome to be presented to the Conference of the Parties for adoption at its sixteenth session to enable the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012
• FCCC/CP/2001/MISC.4	• Statements made in connection with the approval of The Bonn Agreements on the implementation of the Buenos Aires Plan of Action (decision 5/CP.6)
• FCCC/SBI/1996/MISC.1	• Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility: annex on the determination of funding necessary and available for the implementation of the Convention: comments from Parties
• FCCC/SBI/1996/14	• Report of the Subsidiary Body for Implementation on the work of its Fourth Session, Geneva, 10-11 December 1996

• FCCC/SBI/1998/CRP.1	• Implementation of Article 4, paragraphs 8 and 9 of the Convention (Decision 3/CP.3 and Articles 2.3 and 3.14 of the Kyoto Protocol): Note by the secretariat
• FCCC/SBI/2004/6	• Implementation of decisions 12/CP.2 and 12/CP.3: determination of funding for the implementation of the Convention: Note by the secretariat
• FCCC/SBI/2004/10	• Report of the Subsidiary Body for Implementation on its twentieth session, held at Bonn from 16 to 25 June 2004
• FCCC/SBI/2004/18	• Report on the assessment of funding necessary to assist developing countries in fulfilling their commitments under the Convention prepared in the context of the Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility
• FCCC/SBI/2005/INF.7	• Experience of international funds and multilateral financial institutions relevant to the investment needs of developing countries in meeting their commitments under the Convention
• FCCC/SBI/2007/MISC.2	• Views from interested institutions on how they would operationalize decision 5/CMP.2: Submissions from institutions
• FCCC/SBI/2011/INF.1/Add.2	• Compilation and synthesis of fifth national communications Note by the secretariat

Appendix II: ENB documentation

Earth Negotiations Bulletin documentation for the UN Conference on Environment and Development (UNCED) in 1992, where the UNFCCC was created, can be found here: http://enb.iisd.org/vol02/

There are 13 reports from the UNCED and two preparatory meetings, under vol. 2. In-text references to these in the thesis are indicated as “vol. 2 no. x” to differentiate them from the subsequent UNFCCC reports, which are all under vol. 12. In addition, one ENB report from the Commission for Sustainable Development concerning GEF reform has been referenced in the thesis, indicated as “vol. 5 no. 13”.

Earth Negotiations Bulletin reports relevant to the UNFCCC can be obtained from this web page: http://enb.iisd.org/enb/vol12/

There are 663 reports relevant to the UNFCCC covering the period from 6 February 1995, when the reporting begins, to 15 December 2015, the summary of COP-15. Of these, the relevant meetings are:

- The INC for the Framework Convention on Climate Change (UNFCCC)
- Conferences of the Parties to the UN Framework Convention on Climate Change
- Sessions of the Ad Hoc Group on the Berlin Mandate
- Sessions of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI), later these become Sessions of the Subsidiary Bodies of the UNFCCC
- Technical Workshop on Mechanisms under the Kyoto Protocol
- UNFCCC Workshops on Convention Article 4.8 and 4.9 (Adverse Effects)
- UNFCCC workshop on the preparation of national communications from non-Annex I Parties
- Meeting of the Parties to the Kyoto Protocol
- Sessions of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG) and related meetings
- Sessions of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA)
- Climate Change Talks/Conferences [interim meetings held in various cities]

Of the 663, 61 were excluded from analysis because they were not relevant to the climate finance policy process, i.e. meetings not listed above, including IPCC meetings and various UNFCCC workshops. The excluded document numbers are listed below:

25	220	376	522
111	243-248	384	547
124	261	396	581
126	271-279	408	582
138-141	292-295	409	596
164	319-321	440	606
177	340-342	441	607
190	355	486	627
191	356	500	645
210	363	501	

Bibliography

Abbott, K. W., 2012. The transnational regime complex for climate change. *Environment and Planning C: Government and Policy*, 30, 571–590.

Abbott, K. W., 2014. Strengthening the Transnational Regime Complex for Climate Change. *Transnational Environmental Law*, 3 (1), 57–88.

Ackerman, F., 2009. *Financing the Climate Mitigation and Adaptation Measures in Developing Countries* [online]. G-24 Discussion Paper Series. New York, NY, USA: United Nations Conference on Trade and Development. Available from: http://unctad.org/en/docs/gdsmdpg2420094_en.pdf [Accessed 18 Aug 2018].

Adaptation Watch, 2015. *Toward Mutual Accountability: The 2015 Adaptation Finance Transparency Gap Report* [online]. Adaptation Watch. Available from: http://www.adaptationwatch.org/#our-publications [Accessed 19 Apr 2019].

Adger, W. N., 2001. Scales of governance and environmental justice for adaptation and mitigation of climate change. *Journal of International Development*, 13, 921–931.

Adger, W. N., 2003. Social Capital, Collective Action, and Adaptation to Climate Change. *Economic Geography*, 79 (4), 387–404.

Adger, W. N., Arnell, N. W., and Tompkins, E. L., 2005. Successful adaptation to climate change across scales. *Global Environmental Change*, 15, 77–86.

Adger, W. N., Brown, K., Nelson, D. R., Berkes, F., Eakin, H., Folke, C., Galvin, K., Gunderson, L., Goulden, M., O'Brien, K., Ruitenbeek, J., and Tompkins, E. L., 2011. Resilience implications of policy responses to climate change. *Wiley Interdisciplinary Reviews: Climate Change*, 2 (5), 757–766.

Adger, W. N., Huq, S., Brown, K., Conway, D., and Hulme, M., 2003. Adaptation to Climate Change in the Developing World. *Progress in Development Studies*, 3 (3), 295–312.

Afful-Koomson, T., 2015. The Green Climate Fund in Africa: what should be different? *Climate and Development*, 7 (4), 367–379.

Agarwal, A. and Narain, S., 1991. *Global Warming in an Unequal World: A Case of Environmental Colonialism*. New Delhi, IN: Centre for Science and Environment.

Agarwal, A., Narain, S., and Sharma, A., 1999. *Global Environmental Negotiations 1: Green Politics*. New Delhi, IN: Centre for Science and Environment.

Agrawala, S., 2004. Adaptation, development assistance and planning: Challenges and opportunities. *IDS Bulletin*, 35, 50–54.

Albin, C., 2001. *Justice and Fairness in International Negotiation*. Cambridge, UK: Cambridge University Press.

Alexandraki, C., 2019. *COP 24 and Climate Finance: A Stepping Stone or a Blurred Line?* [online]. EJIL:Talk! The blog of the European Journal of International Law. Available from: https://www.ejiltalk.org/cop-24-and-climate-finance-a-stepping-stone-or-a-blurred-line/ [Accessed 30 Jul 2019].

Anderson, K. and Bows, A., 2012. A new paradigm for climate change. *Nature Climate Change*, 2 (9), 639–640.

Armitage, D., 2008. Governance and the commons in a multi-level world Derek. *International Journal of the Commons*, 2 (1), 7–32.

Arthur, W. B., 1988. Self-Reinforcing Mechanisms in Economics. *In*: Anderson, P. W., Arrow, K. J., and Pines, D., eds. *The Economy as an Evolving Complex System*. Reading, MA, USA: Addison-Wesley, 9–32.

Arthur, W. B., 1989. Competing Technologies, Increasing Returns, and Lock-In by Historical Events. *The Economic Journal*, 99 (394), 116–131.

Arthur, W. B., 1994. *Economics, Cognition, And Society: Increasing Returns and Path Dependence in the Economy*. Ann Arbor, MI, USA: University of Michigan Press.

van Asselt, H. and Zelli, F., 2018. International Governance: Polycentric Governing by and beyond the UNFCCC. *In*: Jordan, A., Huitema, D., van Asselt, H., and Forster, J., eds. *Governing Climate Change: Polycentricity in Action?* Cambridge, UK & New York, NY, USA: Cambridge University Press, 29–46.

Ayers, J. and Dodman, D., 2010. Climate change adaptation and development I: the state of the debate. *Progress in Development Studies*, 10 (2), 161–168.

Ayers, J. and Huq, S., 2009. Supporting adaptation to climate change: What role for official development assistance. *Development Policy Review*, 27 (6), 675–692.

Baer, P., 2013. The greenhouse development rights framework for global burden sharing: Reflection on principles and prospects. *Wiley Interdisciplinary Reviews: Climate Change*, 4 (1), 61–71.

Ballesteros, A., Nakhooda, S., Werksman, J., and Hurlburt, K., 2010. Power, responsibility, and accountability: Rethinking the legitimacy of institutions for climate finance. *Climate Law*, 1 (2), 261–312.

Bardhan, P. K., 1989. The new institutional economics and development theory: A brief critical assessment. *World Development*, 17 (9), 1389–1395.

Barnett, M. N. and Finnemore, M., 1999. The Politics, Power, and Pathologies of International Organizations. *International Organization*, 53 (4), 699–732.

Barrett, S., 1994. Self-enforcing environmental international agreements. *Oxford Economic Papers*, 46, 878–894.

Barrett, S., 2003. *Environment and Statecraft: The Strategy of Environmental Treaty-making*. Oxford, UK: Oxford University Press.

Barrett, S., 2013a. Local level climate justice? Adaptation finance and vulnerability reduction. *Global Environmental Change*, 23 (6), 1819–1829.

Barrett, S., 2013b. The necessity of a multiscalar analysis of climate justice. *Progress in Human Geography*, 37 (2), 215–233.

Baudienville, G., 2009. *Beyond grants: climate finance in developing countries* [online]. Opinion 141. London, UK: Overseas Development Institute. Available from: https://www.odi.org/blogs/4538-beyond-grants-climate-finance-developing-countries [Accessed 19 Apr 2019].

Baumert, K. A., Herzog, T., and Pershing, J., 2005. *Navigating the numbers: Greenhouse Gas Data and International Climate Change Policy* [online]. Washington, D.C., USA: World Resources Institute. Available from: https://www.wri.org/publication/navigating-numbers [Accessed 19 Apr 2019].

Beg, N., Morlot, J. C., Davidson, O., Afrane-Okesse, Y., Tyani, L., Denton, F., Sokona, Y., Thomas, J. P., Rovere, E. L. La, Parikh, J. K., Parikh, K., and Rahman, A. A., 2002. Linkages between climate change and sustainable development. *Climate Policy*, 2 (2–3), 129–144.

Béland, D., 2007. Ideas and Institutional Change in Social Security: Conversion, Layering, and Policy Drift. *Social Science Quarterly*, 88 (1), 20–38.

Bennett, A. and Elman, C., 2006. Complex causal relations and case study methods: The example of path dependence. *Political Analysis*, 14, 250–267.

Bernstein, S., 2000. Ideas, Social Structure and the Compromise of Liberal Environmentalism. *European Journal of International Relations*, 6 (4), 464–512.

Bernstein, S. and van der Ven, H., 2017. Continuity and Change in Global Environmental Politics. *In*: Fioretos, O., ed. *International Politics and Institutions in Time*. Oxford, UK: Oxford University Press, 293–318.

Betzold, C., 2010. 'Borrowing' Power to Influence International Negotiations: AOSIS in the Climate Change Regime, 1990 – 1997. *Politics*, 30 (3), 131–148.

Bieler, A., 2013. The EU, Global Europe, and processes of uneven and combined development: the problem of transnational labour solidarity. *Review of International Studies*, 39 (1), 161–183.

Van Bilzen, G., 2015. *The Development of Aid*. Newcastle-upon-Tyne, UK: Cambridge Scholars Publishing.

Bird, N., Brown, J., and Schalatek, L., 2011. *Design challenges for the Green Climate Fund* [online]. Climate Finance Policy Brief 4. Washington, D.C., USA: Heinrich Böll Stiftung & London, UK: Overseas Development Institute. Available from: http://www.boell.de/downloads/Design_challenges_for_the_Green_Climate_Fund.pdf [Accessed 27 Sep 2016].

Birkmann, J. and von Teichman, K., 2010. Integrating disaster risk reduction and climate change adaptation: Key challenges - scales, knowledge, and norms. *Sustainability Science*, 5, 171–184.

Bizikova, L., Yarde, T., Swanson, D., Pintér, L., Thomas, A., Corbin, C., Sabelli, A., Metternicht, G., Salinas, A., and Tulsie, B., 2013. *Building Capacities to Improve Mainstreaming of Multilateral Environmental Agreements (MEAs) Into Development Strategies and Policies in the Caribbean Region* [online]. London, UK: International Institute for Environment and Development. Available from: http://www.iisd.org/library/building-capacities-improve-mainstreaming-multilateral-environmental-agreements-meas [Accessed 19 Apr 2019].

Blaxekjær, L. Ø. and Nielsen, T. D., 2015. Mapping the narrative positions of new political groups under the UNFCCC. *Climate Policy*, 15 (6), 751–766.

Blyth, M., Helgadottir, O., and Kring, W., 2016. Ideas and Historical Institutionalism. *In*: Fioretos, O., Falleti, T. G., and Sheingate, A., eds. *The Oxford Handbook of Historical Institutionalism*. Oxford, UK: Oxford University Press, 142–162.

Bodansky, D., 1993. The United Nations Framework Convention on Climate Change: A Commentary. *Yale Journal of International Law*, 18, 451–558.

Bodansky, D., 2001. The History of the Global Climate Change Regime. *In*: Luterbacher, U. and Sprinz, D. F., eds. *International Relations and Global Climate Change*. Cambridge, MA: MIT Press.

Bodansky, D., 2010. The Copenhagen Climate Change Conference: A Postmortem. *The American Journal of International Law*, 104 (2), 230–240.

Bodansky, D., 2016. The Legal Character of the Paris Agreement. *Review of European, Comparative and International Environmental Law*, 25 (2), 142–150.

Bodansky, D. and Rajamani, L., 2018. The Evolution and Governance Architecture of the United Nations Climate Change Regime. *In*: Sprinz, D. F. and Luterbacher, U., eds. *Global Climate Policy: Actors, Concepts, and Enduring Challenges*. Cambridge, MA, USA: MIT Press, 13–66.

Bodnar, P., Brown, J., and Nakhooda, S., 2015. *What Counts: Tools to Help Define and Understand Progress Towards the $100 Billion Climate Finance Commitment* [online]. Washington, D.C., USA: World Resources Institute. Available from: http://www.wri.org/publication/what-counts-tools-help-define-and-understand-progress-towards-100-billion-climate [Accessed 16 Sep 2016].

Boisson de Chazournes, L., 2005. The Global Environment Facility (GEF): A Unique and Crucial Institution. *Review of European Community and International Environmental Law (RECIEL)*, 14 (3), 193–201.

Bortscheller, M. J., 2010. Principle of Common But Differentiated Responsibilities Hobbles the Global Fight Against Climate Change. *Sustainable Development Law & Policy*, Winter, 49–69.

Boschma, R. A. and Lambooy, J. G., 1999. Evolutionary Economics and Economic Geography. *Journal of Evolutionary Economics*, 9, 411–429.

Botzen, W., Gowdy, J., and Van den Bergh, J., 2008. Cumulative CO2 emissions: shifting international responsibilities for climate debt. *Climate Policy*, 8 (6), 569–576.

Bouwer, L. and Aerts, J., 2006. Financing climate change adaptation. *Disasters*, 30 (1), 49–63.

Bowen, A., Campiglio, E., and Herreras Martinez, S., 2017. An 'equal effort' approach to assessing the North–South climate finance gap. *Climate Policy*, 17 (2), 231–245.

Bowman, M. and Minas, S., 2019. Resilience through interlinkage: the green climate fund and climate finance governance. *Climate Policy*, 19 (3), 342–353.

Boyd, E., 2014. Climate change and development. *In*: Desai, V. and Potter, R. B., eds. *The Companion to Development Studies*. Abingdon, UK & New York, NY, USA: Routldege, 341–346.

Boyd, E., Hultman, N., Roberts, J. T., Corbera, E., Cole, J., Bozmoski, A., Ebeling, J., Tippman, R., Mann, P., Brown, K., and Liverman, D. M., 2009. Reforming the CDM for sustainable development: lessons learned and policy futures. *Environmental Science and Policy*, 12, 820–831.

Boyd, E. and Juhola, S., 2009. Stepping up to the Climate Change: Opportunities in Re-Conceptualising Development Futures. *Journal of International Development*, 21, 792–804.

Boyd, E. and Schipper, E. L., 2002. The Marrakech Accord—At the Crossroad to Ratification: Seventh Conference of the Parties to the United Nations Framework Convention on Climate Change. *The Journal of Environment & Development*, 11 (2), 184–190.

Boyte, R., 2010. Common but Differentiated Responsibilities: Adjusting the 'Developing' / 'Developed' Dichotomy in International Environmental Law. *New Zealand Journal of International Law*, 14, 63–101.

Bracking, S., 2015. The anti-politics of climate finance: The creation and performativity of the green climate fund. *Antipode*, 47 (2), 281–302.

Breitmeier, H., Underdal, A., and Young, O. R., 2011. The Effectiveness of International Environmental Regimes: Comparing and Contrasting Findings from Quantitative Research. *International Studies Review*, 13 (4), 579–605.

Brenton, S. A., 2013. 'Great Powers' in climate politics. *Climate Policy*, 13 (5), 541–546.

Bridgewater, P. and Bridgewater, C., 2005. International environmental governance: The story so far. *In*: Paavola, J. and Lowe, I., eds. *Environmental Values in a Globalizing World: Nature, Justice and Governance*. Abingdon, UK & New York, NY, USA: Routldege.

Brown, J., Bird, N., and Schalatek, L., 2010. *Direct access to the Adaptation Fund: Realising the potential of National Implementing Entities* [online]. Climate Finance Policy Brief No. 3. Washington, D.C., USA: Heinrich Böll Stiftung & London, UK: Overseas Development Institute. Available from: http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/6351.pdf [Accessed 17 Oct 2018].

Brown, J., Bird, N., and Schalatek, L., 2012. *Climate finance additionality: emerging definitions and their implications* [online]. Climate Finance Policy Brief 2. Washington, D.C., USA: Heinrich Böll Stiftung & London, UK: Overseas Development Institute. Available from: https://www.odi.org/resources/docs/6032.pdf [Accessed 10 Apr 2019].

Brown, J., Cantore, N., and te Velde, D. W., 2010. *Climate financing and Development: Friends or foes?* [online]. London, UK: Overseas Development Institute. Available from: https://www.odi.org/publications/4724-climate-financing-and-development-friends-or-foes [Accessed 12 Apr 2019].

Brown, J., Stadelmann, M., and Hörnlein, L., 2011. *Fast-start finance to address climate change: what we know at the mid-point* [online]. Background Note. London, UK: Overseas Development Institute. Available from: https://www.odi.org/publications/5929-fast-start-finance-address-climate-change-what-we-know-mid-point [Accessed 14 Jun 2018].

Brown Weiss, E., 1992. United Nations Conference on Environment and Development. *International Legal Materials*, 31 (4), 814–817.

Brundtland, G. H., 1989. How to secure our common future. *Scientific American*, 261 (3), 190.

Brunnée, J., 2006. International Environmental Law: Rising to the Challenge of Common Concern? *Proceedings of the Annual Meeting (American Society of International Law)*, 100, 307–310.

Brunnée, J. and Streck, C., 2013. The UNFCCC as a negotiation forum: towards common but more differentiated responsibilities. *Climate Policy*, 13 (5), 589–607.

Buchner, B., Brown, J., and Corfee-Morlot, J., 2011. *Monitoring and Tracking Long-Term Finance To Support Climate Action* [online]. Climate Change Expert Group Paper No. 2011(3). Paris, FR: Organisation for Economic Co-Operation and Development. Available from: https://doi.org/10.1787/5k44zcqbbj42-en [Accessed 18 Jun 2017]..

Buchner, B., Falconer, A., Hervé-Mignucci, M., Trabacchi, C., and Brinkman, M., 2011. *The Landscape of Climate Finance*. Venice, IT: Climate Policy Initiative.

Buchner, B. K., Oliver, P., Wang, X., Carswell, C., Meattle, C., and Mazza, F., 2017. *Global Landscape of Climate Finance 2017*. Venice, IT: Climate Policy Initiative.

Buchner, B. K., Trabacchi, C., Mazza, F., Abramskiehn, D., and Wang, D., 2015. *Global Landscape of Climate Finance 2015*. Venice, IT: Climate Policy Initiative.

Bulkeley, H., 2010. Climate policy and governance: An editorial essay. *Wiley Interdisciplinary Reviews: Climate Change*, 1, 311–313.

Bulkeley, H. and Newell, P., 2015. *Governing climate change*. 2nd Ed. Abingdon, UK & New York, NY, USA: Routldege.

Burch, S., 2011. Sustainable development paths: Investigating the roots of local policy responses to climate change. *Sustainable Development*, 19, 176–188.

Cameron, E., Shine, T., and Bevins, W., 2013. *Climate Justice: Equity and Justice Informing a New Climate Agreement* [online]. Washington, D.C., USA: World Resources Institute & Dublin, IE: Mary Robinson Foundation - Climate Justice. Available from: http://www.climatejusticedialogue.org [Accessed 19 Apr 2019].

Campbell, J. L., 2002. Ideas, Politics, and Public Policy. *Annual Review of Sociology*, 28, 21–38.

Caney, S., 2005. Cosmopolitan Justice, Responsibility, and Global Climate Change. *Leiden Journal of International Law*, 18, 747–775.

Caney, S., 2010. Climate change and the duties of the advantaged. *Critical Review of International Social and Political Philosophy*, 13 (1), 203–228.

Caney, S., 2012. Just Emissions. *Philosophy & Public Affairs*, 40 (4), 255–300.

Capoccia, G. and Kelemen, R. D., 2007. The Study of Critical Junctures: Theory, Narrative, and Counterfactuals in Historical Institutionalism. *World Politics*, 59 (3), 341–369.

Carrapatoso, A. and Kürzinger, E., 2014. Conclusions for research and policy agendas. *In*: Carrapatoso, A. and Kürzinger, E., eds. *Climate-Resilient Development: Participatory solutions from developing countries*. Abingdon, UK & New York, NY, USA: Routldege, 267–285.

Carrozza, C., 2015. Democratizing Expertise and Environmental Governance: Different Approaches to the Politics of Science and their Relevance for Policy Analysis. *Journal of Environmental Policy and Planning*, 17 (1), 108–126.

Carter, C., Clegg, S., and Wåhlin, N., 2011. When science meets strategic realpolitik: The case of the Copenhagen UN climate change summit. *Critical Perspectives on Accounting*, 22, 682–697.

Castán Broto, V., Ensor, J., Boyd, E., Allen, C., Seventine, C., and Macucule, D. A., 2015. *Participatory Planning for Climate Compatible Development in Maputo, Mozambique*. London, UK: UCL Press.

Castro, P., Hörnlein, L., and Michaelowa, K., 2014. Constructed peer groups and path dependence in international organizations: The case of the international climate change negotiations. *Global Environmental Change*, 25 (1), 109–120.

Chan, N., 2013. The construction of the South: developing countries, coalition formation and the UN climate change negotiations, 1988-2012. PhD Thesis, Department of Politics and International Relations, St. Anthony's College, University of Oxford.

Chang, H.-J., 2003. *Kicking Away the Ladder: Development Strategy in Historical Perspective*. London, UK & New York, NY, USA: Anthem Press.

Chenery, H. B. and Strout, A. M., 1966. Foreign Assistance and Economic Development. *The American Economic Review*, LVI (4), 679–733.

Chwieroth, J. M., 2013. Controlling Capital: The International Monetary Fund and Transformative Incremental Change from Within International Organisations. *New Political Economy*, 19 (3), 445–469.

Ciplet, D., 2015. Rethinking Cooperation: Inequality and Consent in International Climate Change Politics. *Global Governance*, 1, 247–274.

Ciplet, D. and Roberts, J. T., 2017. Splintering South: Ecologically Unequal Exchange Theory in a Fragmented Global Climate. *Journal of World-Systems Research*, 23 (2), 372–398.

Ciplet, D., Roberts, J. T., and Khan, M., 2013. The Politics of International Climate Adaptation Funding: Justice and Divisions in the Greenhouse. *Global Environmental Politics*, 13 (1), 49–68.

Ciplet, D., Roberts, J. T., and Khan, M., 2015. *Power in a Warming World: The New Global Politics of Climate Change and the Remaking of Environmental Inequality*. Cambridge, MA, USA & London, UK: MIT Press.

Clark, W. C., 1989. Managing Planet Earth. *Scientific American*, 261 (3), 46–57.

Clemens, M. A. and Moss, T. J., 2009. The ghost of 0.7 per cent: origins and relevance of the international aid target. *International Journal of Development Issues*, 6 (1), 3–25.

Cohen, S., Demeritt, D., Robinson, J., and Rothman, D., 1998. Climate change and sustainable development: towards dialogue. *Global Environmental Change*, 8 (4), 341–371.

Coleman, K. P., 2013. Locating norm diplomacy: Venue change in international norm negotiations. *European Journal of International Relations*, 19 (1), 163–186.

Collier, P., 2015. Curbing carbon without curbing development. *In*: Barrett, S., Carraro, C., and de Melo, J., eds. *Towards a Workable and Effective Climate Regime*. London, UK: CEPR Press & Clermont-Ferrand, FR: Ferdi, 423–434.

Collier, R. B. and Collier, D., 1991. *Shaping the Political Arena: Critical Junctures, the Labor Movement, and Regime Dynamics in Latin America*. Princeton, NJ, USA: Princeton University Press.

Collins, C. P., 1991. Climate Change Negotiations Polarize. *Ambio*, 20 (7), 340–345.

Cook, J., Nuccitelli, D., Green, S. A., Richardson, M., Winkler, B., Painting, R., Way, R., Jacobs, P., and Skuce, A., 2013. Quantifying the consensus on anthropogenic global warming in the literature. *Energy Policy*, 8, 1–7.

Costantini, V., Sforna, G., and Zoli, M., 2016. Interpreting bargaining strategies of developing countries in climate negotiations. A quantitative approach. *Ecological Economics*, 121, 128–139.

COWI and IIED, 2009. *Operation of the Least Developed Countries Fund for Adaptation to Climate Change* [online]. Joint External Evaluation. Copenhagen, DK: Ministry of Foreign Affairs of Denmark. Available from: http://um.dk/en/danida-en/results/eval/Eval_reports/publicationdisplaypage/?publicationID=B42FCD1C-B94E-424C-BDF9-A571F1710743 [Accessed 19 Apr 2019].

Crump, L. and Downie, C., 2015. Understanding climate change negotiations: Contributions from international negotiation and conflict management. *International Negotiation*, 20, 146–174.

Cseh, A., 2019. Aligning climate action with the self-interest and short-term dominated priorities of decision-makers. *Climate Policy*, 19 (2), 139–146.

Cumberlege, S., 2009. Multilateral Environmental Agreements: From Montreal to Kyoto - a Theoretical Approach to an Improved Climate Change Regime. *Denver Journal of International Law and Policy*, 37 (2), 303–329.

D'Costa, A. P., 2003. Uneven and combined development: Understanding India's software exports. *World Development*, 31 (1), 211–226.

Dasgupta, C., 1994. The Climate Change Negotiations. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, Australia: Cambridge University Press, 129–148.

Dasgupta, D. and Government of India, 2015. *Climate Change Finance, Analysis of a Recent OECD Report: Some Credible Facts Needed*. New Delhi, IN: Climate Change Finance Unit, Department of Economic Affairs, Ministry of Finance, Government of India.

David, P. A., 1994. Why are Institutions the 'Carriers of History'?: Path Dependence and the Evolution of Conventions, Organizations and Institutions. *Structural Change and Economic Dynamics*, 5 (2), 205–220.

Davidson, J., 1992. The Earth Summit. *Development in Practice*, 2 (3), 201–203.

Dawson, A., 2010. Climate Justice: The Emerging Movement against Green Capitalism. *South Atlantic Quarterly*, 109 (2), 313–338.

Deleuil, T., 2012. The common but differentiated responsibilities principle: Changes in continuity after the Durban conference of the parties. *Review of European Community and International Environmental Law (RECIEL)*, 21 (3), 271–281.

Dellink, R., Elzen, M. Den, Aiking, H., Bergsma, E., Berkhout, F., Dekker, T., and Gupta, J., 2009. Sharing the burden of financing adaptation to climate change. *Global Environmental Change*, 19, 411–421.

Dessai, S., 2003. The special climate change fund: origins and prioritisation assessment. *Climate Policy*, 3 (3), 295–302.

Deutschke, M. and Michaelowa, A., 2006. Development assistance and the CDM – how to interpret 'financial additionality'. *Environment and Development Economics*, 11, 235–246.

Dietz, T., Ostrom, E., and Stern, C. P., 2003. Struggle to Govern the Commons. *Science*, 302 (5652), 1907–1912.

DiMaggio, P., 1998. The New Institutionalisms: Avenues of Collaboration. *Journal of Institutional and Theoretical Economics*, 154 (4), 696–705.

Dimitrov, R. S., 2010. Inside UN Climate Change Negotiations: The Copenhagen Conference. *Review of Policy Research*, 27 (6), 795–821.

Dimitrov, R. S., 2016. The Paris Agreement on Climate Change: Behind Closed Doors. *Global Environmental Politics*, 16 (3), 1–11.

Djelic, M. L. and Quack, S., 2007. Overcoming path dependency: Path generation in open systems. *Theory and Society*, 36 (2), 161–186.

Djoghlaf, A., 1994. The Beginnings of an International Climate Law. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, AU: Cambridge University Press, 97–112.

Dowdeswell, E. and Kinley, R. J., 1994. The climate change negotiations. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, AU: Cambridge University Press, 129–148.

Drummond, L., 2011. UNFCCC Green Climate Fund Created. *Sustainable Development Law & Policy*, 69–98.

Dugger, W. M., 1995. Douglass C. North's New Institutionalism. *Journal of Economic Issues*, 29 (2), 453–458.

Duit, A., 2007. Path Dependency and Institutional Change: The Case of Emission Control in Sweden. *Public Administration*, 85 (4), 1097–1118.

Eakin, H. and Lemos, M. C., 2006. Adaptation and the state: Latin America and the challenge of capacity-building under globalization. *Global Environmental Change*, 16, 7–18.

Easterly, B. W., 2007. Was Development Assistance a Mistake ? *The American Economic Review*, 97 (2), 328–332.

Ekholm, T. and Lindroos, T. J., 2015. *Assessing countries' historical contributions to GHG emissions* [online]. Espoo, FI: VTT Technical Research Centre of Finland. Available from: http://www.vtt.fi/inf/julkaisut/muut/2015/VTT-R-00139-15.pdf [Accessed 24 Apr 2017].

Ekholm, T., Soimakallio, S., Moltmann, S., Höhne, N., Syri, S., and Savolainen, I., 2010. Effort sharing in ambitious, global climate change mitigation scenarios. *Energy Policy*, 38, 1797–1810.

Ellis, J. and Moarif, S., 2016. *Enhancing transparency of climate finance under the Paris Agreement: lessons from experience* [online]. Climate Change Expert Group Paper No. 2016(3). Paris, FR: Organisation for Economic Co-Operation and Development. Available from: http://www.oecd.org/environment/cc/Enhancing-transparency-of-climate-finance.pdf [Accessed 10 Oct 2018].

den Elzen, M. G. J., Olivier, J. G. J., Höhne, N., and Janssens-Maenhout, G., 2013. Countries' contributions to climate change: Effect of accounting for all greenhouse gases, recent trends, basic needs and technological progress. *Climatic Change*, 121 (2), 397–412.

Engberg-Pedersen, L., 2011. *Climate change negotiations and their implications for international development cooperation*. Copenhagen, DK: Danish Institute for International Studies.

Ensor, J., 2011. *Community-based adaptation and development practice*. Uncertain futures: adapting development to a changing climate. Bourton on Dunsmore, UK: Practical Action Publishing.

Ervine, K., 2007. The Greying of Green Governance: Power Politics and the Global Environment Facility. *Capitalism Nature Socialism*, 18 (4), 125–142.

Eyckmans, J., Fankhauser, S., and Kverndokk, S., 2013. *Equity, Development Aid and Climate Finance* [online]. Working Paper No.143/No. 123. London, UK: Centre for Climate Change Economics and Policy & London, UK: Grantham Research Institute on Climate Change and the Environment. Available from: http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2013/08/WP123-Development-aid-and-climate-finance.pdf [Accessed 18 Oct 2018].

Fairman, D., 1994. Report of the Independent Evaluation of the Global Environment Facility Pilot Phase. *Environment*, 36 (6), 25–30.

Falkner, R., 2005. American Hegemony and the Global Environment. *International Studies Review*, 7, 585–599.

Falkner, R., 2016. The Paris Agreement and the new logic of international climate politics. *International Affairs*, 92 (5), 1107–1125.

Falkner, R., 2019. The unavoidability of justice – and order – in international climate politics: From Kyoto to Paris and beyond. *The British Journal of Politics and International Relations*, 1–9.

Falkner, R. and Buzan, B., 2019. The emergence of environmental stewardship as a primary institution of global international society. *European Journal of International Relations*, 25 (1), 131–155.

Falkner, R., Stephan, H., and Vogler, J., 2010. International Climate Policy after Copenhagen: Towards a 'Building Blocks' Approach. *Global Policy*, 1 (3), 252–262.

Fallasch, F. and De Marez, L., 2010. *New and Additional? An assessment of fast-start finance commitments of the Copenhagen Accord* [online]. Potsdam, DE: Climate Analytics. Available from: http://climateanalytics.org/files/20101007_newandadditional_assessmentoffsfcommittments_1.pdf [Accessed 18 May 2018].

Fankhauser, S., 2010. The costs of adaptation. *Wiley Interdisciplinary Reviews: Climate Change*, 1, 23–30.

Fankhauser, S., Sahni, A., Savvas, A., and Ward, J., 2016. Where are the gaps in climate finance? *Climate and Development*, 8 (3), 203–206.

FAO, 2016. *The State of Food and Agriculture: Climate Change, Agriculture, and Food Security (In Brief)* [online]. Rome, IT: Food and Agriculture Organization of the United Nations. Available from: http://www.fao.org/publications/sofa/sofa2016/en/ [Accessed 17 Oct 2016].

Farrell, H. and Finnemore, M., 2016. Global Institutions without a Global State. *In*: Fioretos, O., Falleti, T. G., and Sheingate, A., eds. *The Oxford Handbook of Historical Institutionalism*. Oxford, UK: Oxford University Press, 572–589.

Farrell, H. and Newman, A. L., 2010. Making global markets: Historical institutionalism in international political economy. *Review of International Political Economy*, 17 (4), 609–638.

Finnemore, M., 1996. Norms, Culture, and World Politics: Insights from Sociology's Institutionalism. *International Organization*, 50 (2), 325–347.

Finnemore, M. and Sikkink, K., 1998. International Norm Dynamics and Political Change. *International Organization*, 52 (4), 887–917.

Finnemore, M. and Sikkink, K., 2001. Taking Stock: The Constructivist Research Program in International Relations and Comparative Politics. *Annual Review of Political Science*, 4, 391–416.

Fioretos, O., 2011. Historical Institutionalism in International Relations. *International Organization*, 65 (2), 367–399.

Fioretos, O., Falleti, T. G., and Sheingate, A., 2016a. Historical Institutionalism in Political Science. *In*: *Historical Institutionalism in Political Science*. Oxford, UK: Oxford University Press, 3–28.

Fioretos, O., Falleti, T. G., and Sheingate, A., eds., 2016b. *The Oxford Handbook of Historical Institutionalism*. Oxford, UK: Oxford University Press.

Fiorina, M., 1995. Rational Choice and the New(?) Institutionalism. *Polity*, 28 (1), 107–115.

Flåm, K. H. and Skjærseth, J. B., 2009. Does adequate financing exist for adaptation in developing countries? *Climate Policy*, 9 (1), 109–114.

Flannery, B. P., 2015. The state of climate negotiations. *In*: Barrett, S., Carraro, C., and de Melo, J., eds. *Towards a Workable and Effective Climate Regime*. London, UK: CEPR Press & Clermont-Ferrand, FR: Ferdi, 69–82.

Foray, D., 1997. The dynamic implications of increasing returns: Technological change and path dependent inefficiency. *International Journal of Industrial Organization*, 15 (6), 733–752.

Fransen, T., Nakhooda, S., Shimizu, N., and Harmeling, S., 2012. *Fast-Start Finance: Where Do We Stand at the End of 2012?* [online]. Washington, D.C., USA: World Resources Institute. Available from: http://www.wri.org/blog/2012/12/fast-start-finance-where-do-we-stand-end-2012 [Accessed 18 May 2018].

Fridahl, M. and Linnér, B.-O., 2016. Perspectives on the Green Climate Fund: possible compromises on capitalization and balanced allocation. *Climate and Development*, 8 (2), 105–109.

Friends of the Earth, 2014. *Ban Ki-moon urged to champion public funds for climate finance* [online]. Friends of the Earth International. Available from: https://foe.org/news/2014-09-ban-ki-moon-urged-to-champion-public-funds-for-climate-finance/ [Accessed 25 Apr 2018].

Friman, M. and Linnér, B.-O., 2008. Technology obscuring equity: historical responsibility in UNFCCC negotiations. *Climate Policy*, 8 (4), 339–354.

Frisari, G., Hervé-Mignucci, M., Micale, V., and Mazza, F., 2013. *Risk Gaps: A Map of Risk Mitigation Instruments for Clean Investments* [online]. San Francisco, CA, USA: Climate Policy Initiative. Available from: http://climatepolicyinitiative.org/wp-content/uploads/2013/01/Risk-Gaps-A-Map-of-Risk-Mitigation-Instruments-for-Clean-Investments.pdf [Accessed 16 Sep 2016].

Frischmann, B., 2003. A Dynamic Institutional Theory of International Law. *Buffalo Law Review*, 51, 679–809.

Füssel, H. M., 2010. How inequitable is the global distribution of responsibility, capability, and vulnerability to climate change: A comprehensive indicator-based assessment. *Global Environmental Change*, 20 (4), 597–611.

Garcia, F. J., 2000. Trade and Inequality: Economic Justice and the Developing World. *Michigan State Journal of International Law*, 21, 975–1049.

Garrelts, H. and Lange, H., 2011. Path dependencies and path change in complex fields of action: Climate adaptation policies in Germany in the realm of flood risk management. *Ambio*, 40 (2), 200–209.

GEF, 2002. *Summary of Negotiations on the Third Replenishment of the GEF Trust Fund* [online]. GEF/A.2/7. Washington, D.C., USA: Global Environment Facility. Available from: https://www.thegef.org/sites/default/files/council-meeting-documents/GEF.A.2.7.English_1.pdf [Accessed 22 Nov 2018].

Gerring, J., 2011. The Case Study: What it is and What it Does. *In*: Goodin, R. E., ed. *The Oxford Handbook of Political Science*. Oxford, UK: Oxford University Press, 1133–1165.

Ghosh, A. and Woods, N., 2009. Developing Country Concerns about Climate Finance Proposals. *In*: Stewart, R. B., Kingsbury, B., and Rudyk, B., eds. *Climate Finance: Regulatory and Funding Strategies for Climate Change and Global Development*. New York, NY, USA: NYU Press, 157–164.

Goldemberg, J., 1994. The Road to Rio. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, AU: Cambridge University Press.

Goldin, I., 2013. *Divided Nations: Why Global Governance is Failing and What We Can Do About It*. Oxford, UK: Oxford University Press.

Gomez-Echeverri, L., 2010. *The Reformed Financial Mechanism of the UNFCCC: Promoting Transparency & Accountability* [online]. OIES EV 51. Oxford, UK: Oxford Institute for Energy Studies. Available from: https://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/03/EV51-TheReformedFinancialMechanismoftheUNFCCCPromoting-Transparency-Accountability.pdf [Accessed 10 Apr 2019].

Gomez-Echeverri, L., 2013. The changing geopolitics of climate change. *Climate Policy*, 13 (5), 632–648.

Gomez-Echeverri, L. and Müller, B., 2009. *The Financial Mechanism of the UNFCCC: A Brief History* [online]. ECBI Policy Brief. Oxford, UK: European Capacity Building Initiative. Available from: https://eurocapacity.org/publications/financial-mechanism-unfccc-brief-history [Accessed 21 Sep 2016].

Gonzalez, C., 2006. Markets, Monocultures, and Malnutrition: Agricultural Trade Policy Through an Environmental Justice Lens. *Michigan State Journal of International Law*, 14, 345–382.

Grasso, M., 2011. The role of justice in the North-South conflict in climate change: the case of negotiations on the Adaptation Fund. *International Environmental Agreements: Politics, Law and Economics*, 11 (4), 361–377.

Grasso, M. and Saachi, S., 2011. *Procedural justice in international negotiations on climate change* [online]. CISEPS Research Paper No. 6/2011. Milan, IT: Center for Interdisciplinary Studies in Economics, Psychology & Social Sciences. Available from: http://ssrn.com/abstract=1863855 [Accessed 18 Aug 2018].

Grear, A., 2014. Towards 'climate justice'? A critical reflection on legal subjectivity and climate injustice: warning signals, patterned hierarchies, future directions for future law and policy. *Journal of Human Rights and the Environment*, 5, 103–133.

Green, B. A., 2009. Lessons from the Montreal Protocol: Guidance for the Next International Climate Change Agreement. *Environmental Law*, 39, 253–283.

Greener, I., 2002. Understanding NHS Reform: The Policy-Transfer, Social Learning, and Path-Dependency Perspectives. *Governance*, 15 (2), 161.

Gupta, A. and van Asselt, H., 2019. Transparency in multilateral climate politics: Furthering (or distracting from) accountability? *Regulation and Governance*, 13, 18–34.

Gupta, J., 1997. *The Climate Change Convention and Developing Countries: From Conflict to Consensus?* Dordrecht, NL: Kluwer Academic Publishers.

Gupta, J., 1999. North-South Aspects of the Climate Change Issue: Towards a Constructive Negotiating Package for Developing Countries. *Review of European, Comparative and International Environmental Law*, 8 (2), 198–208.

Gupta, J., 2010. A history of international climate change policy. *Wiley Interdisciplinary Reviews: Climate Change*, 1, 636–653.

Gupta, J., 2014. *The History of Global Climate Governance*. Cambridge, UK: Cambridge University Press.

Gupta, J., 2015. The North-South divide. *In*: Bäckstrand, K. and Lövbrand, E., eds. *Research Handbook on Climate Governance*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing, 142–152.

Haas, P., 2004. When does power listen to truth? A constructivist approach to the policy process. *Journal of European Public Policy*, 11 (4), 569–592.

Haas, P. M., 2002. UN Conferences and Constructivist Governance. *Global Governance*, 8, 73–91.

Haas, P. M., Keohane, R. O., and Levy, M. A., eds., 1993. *Institutions for the Earth: Sources of Effective International Environmental Protection*. Cambridge, MA, USA: MIT Press.

Haites, E., 2011. Climate change finance. *Climate Policy*, 11, 963–969.

Hale, T., Held, D., and Young, K., 2013. *Gridlock: Why Global Cooperation Is Failing When We Need It Most*. Cambridge, UK: Polity Press.

Halimanjaya, A., 2015. Climate mitigation finance across developing countries: what are the major determinants? *Climate Policy*, 15 (2), 223–252.

Hall, N., 2017. What is adaptation to climate change? Epistemic ambiguity in the climate finance system. *International Environmental Agreements: Politics, Law and Economics*, 17 (1), 37–53.

Hall, P. A., 1993. Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain. *Comparative Politics*, 25 (3), 275–296.

Hall, P. A., 2009. Historical Institutionalism in Rationalist and Sociological Perspective. *In*: Mahoney, J. and Thelen, K., eds. *Explaining Institutional Change: Ambiguity, Agency, and Power*. New York, NY, USA: Cambridge University Press, 204–223.

Hall, P. A., 2016. Politics as a Process Structured in Space and Time. *In*: Fioretos, O., Falleti, T. G., and Sheingate, A., eds. *The Oxford Handbook of Historical Institutionalism*. Oxford, UK: Oxford University Press, 31–50.

Hall, P. A. and Taylor, R. C., 1996. Political Science and the Three New Institutionalisms. *Political Studies*, 44, 936–957.

Hall, P. A. and Thelen, K., 2009. Institutional change in varieties of capitalism. *Socio-Economic Review*, 7, 7–34.

Hallding, K., Jürisoo, M., Carson, M., and Atteridge, A., 2013. Rising powers: the evolving role of BASIC countries. *Climate Policy*, 13 (5), 608–631.

Hanrieder, T., 2014. Gradual Change in International Organisations: Agency Theory and Historical Institutionalism. *Politics*, 34 (4), 324–333.

Harmeling, S. and Kaloga, A. O., 2011. Understanding the Political Economy of the Adaptation Fund. *IDS Bulletin*, 42 (3), 23–32.

Harris, P. G., 1999. Common But Differentiated Responsibility: The Kyoto Protocol and United States Policy. *N.Y.U. Environmental Law Journal*, 7, 27–48.

Harris, P. G., 2013. *What's Wrong with Climate Politics and How to Fix It*. Cambridge, UK: Polity Press.

Hawkins, D. G., Lake, D. A., Nielson, D. L., and Tierney, M. J., 2006. Delegation under anarchy: states, international organizations, and principal-agent theory. *In*: Hawkins, D. G., Lake, D. A., Nielson, D. L., and Tierney, M. J., eds. *Delegation and agency in international organizations*. Cambridge, UK: Cambridge University Press, 3–38.

Hayward, T., 2007. Human Rights Versus Emissions Rights: Climate Justice and the Equitable Distribution of Ecological Space. *Ethics & International Affairs*, 21, 431–450.

Hedger, M. and Nakhooda, S., 2015. *Finance and Intended Nationally Determined Contributions (INDCs): enabling implementation* [online]. Working Paper 425. London, UK: Overseas Development Institute. Available from: https://www.odi.org/publications/9506-finance-intended-national-determined-contribution-indc-enabling-implementation-cop21-bonn [Accessed 24 Apr 2017].

Heywood, A., 2000. *Key Concepts in Politics*. Basingstoke, UK & New York, NY, USA: Palgrave Macmillan.

Higgott, R., 2008. International Political Institutions. *In*: Binder, S. A., Rhodes, R., and Rockman, B. A., eds. *The Oxford Handbook of Political Institutions*. Oxford, UK: Oxford University Press, 611–632.

Hira, A. and Hira, R., 2000. The New Institutionalism: Contradictory Notions of Change. *The American Journal of Economics and Sociology*, 59 (2), 267–282.

Hirst, D., 2014. Negotiating Climates: The Politics of Climate Change and the Formation of the Intergovernmental Panel on Climate Change (IPCC), 1979-1992. PhD Thesis, Faculty of Life Sciences, University of Manchester.

Hochstetler, K. A., 2012. The G-77, BASIC, and global climate governance: a new era in multilateral environmental negotiations. *Revista Brasileira de Pol tica Internacional*, 55, 53–69.

Hoffman, M. J., 2013. Climate Change. *In*: Weiss, T. G. and Wilkinson, R., eds. *International Organization and Global Governance*. Abingdon, UK & New York, NY, USA: Routldege, 605–617.

Hogan, J., 2006. Remoulding the Critical Junctures Approach. *Canadian Journal of Political Science/Revue canadienne de science politique*, 39 (3), 657–679.

Höhne, N. and Blok, K., 2005. Calculating historical contributions to climate change - Discussing the 'Brazilian proposal'. *Climatic Change*, 71 (1–2), 141–173.

Höhne, N., Kuramochi, T., Warnecke, C., Röser, F., Fekete, H., Hagemann, M., Day, T., Tewari, R., Kurdziel, M., Sterl, S., and Gonzales, S., 2017. The Paris Agreement: resolving the inconsistency between global goals and national contributions. *Climate Policy*, 17 (1), 16–32.

Honkonen, T., 2009. The principle of common but differentiated responsibility in post-2012 climate negotiations. *Review of European Community and International Environmental Law (RECIEL)*, 18 (3), 257–267.

Hopf, T., 1998. The Promise of Constructivism in International Relations Theory. *International Security*, 23 (1), 171–200.

Horstmann, B. and Abeysinghe, A. C., 2011. The Adaptation Fund of the Kyoto Protocol: A model for financing adaptation to climate change? *Climate Law*, 2, 415–437.

Horta, K., Round, R., and Young, Z., 2002. *The Global Environment Facility: The First Ten Years - Growing Pains or Inherent Flaws?* Washington, D.C., USA: Environmental Defense Fund & Ottawa, CA: Halifax Initiative.

Hotimsky, S., Cobb, R., and Bond, A., 2006. Contracts or Scripts? A Critical Review of the Application of Institutional Theories to the Study of Environmental Change. *Ecology and Society*, 11 (1), 1–10.

Hudson, J. and Lowe, S., 2009. *Understanding the Policy Process: Analysing Welfare Policy and Practice*. 2nd Ed. Bristol, UK: The Policy Press.

Humphreys, S., 2014. Climate justice: the claim of the past. *Journal of Human Rights and the Environment*, 5, 134–148.

Huq, S., 2002. The Bonn-Marrakech agreements on funding. *Climate Policy*, 2 (2–3), 243–246.

Huq, S., 2011. *Adaptation: resources now to plan and implement* [online]. Opinion. London, UK: International Institute for Environment and Development. Available from: http://pubs.iied.org/17117IIED [Accessed 4 Jul 2018].

Huq, S. and Ayers, J., 2007. *Critical list: the 100 nations most vulnerable to climate change* [online]. Sustainable Development Opinion. London, UK: International Institute for Environment and Development. Available from: http://pubs.iied.org/17022IIED/ [Accessed 8 Oct 2018].

Huq, S., Yamin, F., Rahman, A., Chatterjee, A., Yang, X., Wade, S., Orindi, V., and Chigwada, J., 2005. Linking climate adaptation and development: A synthesis of six case studies from Asia and Africa. *IDS Bulletin*, 36 (4), 117–122.

Hurrell, A. and Narkilar, A., 2006. A New Politics of Confrontation? Brazil and India in Multilateral Trade Negotiations. *Global Society*, 20 (4), 415–433.

Hyder, T. O., 1994. Looking Back to See Forward. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, AU: Cambridge University Press, 201–226.

IEA and IRENA, 2017. *Perspectives for the Energy Transition: Investment Needs for a Low-Carbon Energy System* [online]. Paris, FR: International Energy Agency & Abu Dhabi, AE: International Renewable Energy Agency. Available from: http://www.irena.org/DocumentDownloads/Publications/Perspectives_for_the_Energy_Transition_2017.pdf [Accessed 22 Sep 2018].

IISD, 2017. *Earth Negotiations Bulletin (ENB)* [online]. International Institute for Sustainable Development. Available from: http://enb.iisd.org/enb/ [Accessed 22 May 2017].

Ikenberry, G. J., 2016. The Rise, Character, and Evolution of International Order. *In*: Fioretos, O., Falleti, T. G., and Sheingate, A., eds. *The Oxford Handbook of Historical Institutionalism*. Oxford, UK: Oxford University Press, 538–552.

Immergut, E. M., 1998. The theoretical core of the new institutionalism. *Politics & Society*, 26 (1), 5–34.

Immergut, E. M. and Anderson, K. M., 2008. Historical Institutionalism and West European Politics. *West European Politics*, 31 (1–2), 345–369.

IPCC, 1990. Policymakers Summary. *In*: Houghton, J. T., Jenkins, G. J., and Ephraums, J. J., eds. *Climate change: the IPCC Scientific Assessment. Working Group I report for the First Assessment Report of the Intergovernmental Panel on Climate Change*. Geneva, CH: World Meteorological Organization.

IPCC, 2013. Summary for Policymakers. *In*: Stoker, T. F. et al, ed. *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK: Cambridge University Press.

IPCC, 2014. Summary for Policymakers. *In*: Field, C. B. et al, ed. *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK: Cambridge University Press.

IPCC, 2018. Summary for Policymakers. *In*: Masson-Delmotte, V., Zhai, P., Pörtner, H.-O., Roberts, D., Skea, J., Shukla, P. R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R., Connors, S., Matthews, J. R., Chen, Y., Zhou, X., Gomis, M. I., Lonnoy, E., Maycock, T., Tignor, M., and Waterfield, T., eds. *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change,*. Geneva, CH: World Meteorological Organization.

ISET, 2010. *The Shared Learning Dialogue: Building Stakeholder Capacity and Engagement for Resilience Action* [online]. Climate Resilience in Concept and Practice: ISET Working Paper 1. Boulder, CO, USA: Institute for Social and Environmental Transition. Available from: https://www.i-s-e-t.org/resource-resilience-practice-one [Accessed 16 Nov 2016].

Jamieson, D., 2010. Climate change, responsibility, and justice. *Science and Engineering Ethics*, 16 (3), 431–445.

Joffe, P., Waskow, D., DeAngelis, K., Bevins, W., and Dagnet, Y., 2013. *Equity Lessons from Multilateral Regimes for the New Climate Agreement* [online]. Working Paper. Washington, D.C., USA: World Resources Institute. Available from: https://www.wri.org/publication/equity-lessons-multilateral-regimes-new-climate-agreement [Accessed 18 Aug 2018].

Jordan, A., 1994a. The Global Environment Facility (GEF). *Global Environmental Change*, 4 (3), 265–267.

Jordan, A., 1994b. Paying the incremental costs of global environmental protection: The evolving role of GEF. *Environment*, 36 (6), 12–36.

Jordan, A., 1995. Designing New International Organizations: a Note on the Structure and Operation of the Global Environment Facility. *Public Administration*, 73, 303–312.

Jordan, A., Huitema, D., van Asselt, H., and Forster, J., 2018. Governing Climate Change Polycentrically: The Promise and Limits of Polycentric Governance. *In*: Jordan, A., Huitema, D., van Asselt, H., and Forster, J., eds. *Governing Climate Change: Polycentricity in Action?* Cambridge, UK & New York, NY, USA: Cambridge University Press, 359–383.

Joshi, S., 2015. Postcoloniality and the North–South binary revisited: the case of India's climate politics. *In*: Bryant, R. L., ed. *The International Handbook of Political Ecology*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing, 117–130.

Kandlikar, M. and Sagar, A., 1999. Climate change research and analysis in India: an integrated assessment of a South—North divide. *Global Environmental Change*, 9, 119–138.

Kanitkar, T., Jayaraman, T., D'Souza, M., Sanwal, M., Purkayastha, P., and Talwar, R., 2010. *Meeting equity in a finite carbon world: Global carbon budgets and burden sharing in mitigation actions* [online]. Background Paper for the Conference on 'Global Carbon Budgets and Equity in Climate Change" – June 28-29, 2010, Tata Institute of Social Sciences Centre'. Mumbai, IN: Tata Institute of Social Sciences. Available from: https://in.boell.org/sites/default/files/downloads/BackgroundPaper31May2010.pdf [Accessed 4 Nov 2016].

Keenan, J. M., Chu, E., and Peterson, J., 2019. From funding to financing: perspectives shaping a research agenda for investment in urban climate adaptation. *International Journal of Urban Sustainable Development* [online], 1–12. Available from: https://doi.org/10.1080/19463138.2019.1565413.

Keeney, R. and McDaniels, T., 2001. A framework to guide thinking and analysis regarding climate change policies. *Risk Analysis*, 21 (6), 989–1000.

Keohane, R. O., 1984. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ, USA: Princeton University Press.

Keohane, R. O., 1988. International Institutions: Two Approaches. *International Studies Quarterly*, 32 (4), 379–396.

Keohane, R. O., 2002. Institutional Theory in International Relations. *In*: Brecher, Mi. and Harvey, F. P., eds. *Millenial Reflections on International Studies*. Ann Arbor, MI, USA: University of Michigan Press, 153–159.

Keohane, R. O. and Nye, J. S. J., 2000. *Power and Interdependence: World Politics in Transition*. 3rd Ed. New York, NY, USA: Addison Wesley Longman.

Keohane, R. O. and Victor, D. G., 2011. The Regime Complex for Climate Change. *Perspectives on Politics*, 9 (1), 7–23.

Khan, F. I. and Müller, B., 2011. *What Functions? What Form? Operationalizing the Standing Committee* [online]. Oxford, UK: European Capacity Building Initiative. Available from: http://www.oxfordclimatepolicy.org/publications/mueller.shtml [Accessed 21 Mar 2018].

Khan, M. and Roberts, J. T., 2013. Adaptation and international climate policy. *Wiley Interdisciplinary Reviews: Climate Change*, 4, 171–189.

Kharas, H., 2015. Development Aid and Climate Finance. *In*: *COP21 at Paris: What to expect* [online]. Washington, D.C., USA: Brookings Institution, 24–28. Available from: https://www.brookings.edu/research/cop-21-at-paris-the-issues-the-actors-and-the-road-ahead-on-climate-change/ [Accessed 18 May 2018].

Kjellen, B., 1994. The Road to Rio. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, AU: Cambridge University Press, 175–186.

Klein, R. J., 2010. Mainstreaming Climate Adaptation into Development: A Policy Dilemma. *In*: Ansohn, A. and Pleskovic, B., eds. *Climate Governance and Development*. Washington, D.C., USA: World Bank, 45–65.

Klein, R. J., Eriksen, S. E., Næss, L. O., Hammill, A., Tanner, T. M., Robledo, C., and O'Brien, K. L., 2007. Portfolio screening to support the mainstreaming of adaptation to climate change into development assistance. *Climatic Change*, 84, 23–44.

Klein, R. J. and Möhner, A., 2011. The Political Dimension of Vulnerability: Implications for the Green Climate Fund. *IDS Bulletin*, 42 (3), 15–22.

Kline, D., 2001. Positive Feedback, Lock-In, and Environmental Policy. *Policy Sciences*, 34 (1), 95–107.

Klinsky, S. and Winkler, H., 2014. Equity, sustainable development and climate policy. *Climate Policy*, 14 (1), 1–7.

Knecht, R. W. and Cicin-Sain, B., 1993. Earth Summit held: Stage set for new global partnership. *Ocean & Coastal Management*, 19, 75–86.

Knoke, I. and Duwe, M., 2012. *Climate Change Financing: The Concept of Additionality* [online]. Brussels, BE: Directorate-General for External Policies of the Union, European Parliament. Available from: http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO-DEVE_NT(2012)433785 [Accessed 14 Jun 2018].

Knox-Hayes, J., 2012. Negotiating climate legislation: Policy path dependence and coalition stabilization. *Regulation and Governance*, 6 (4), 545–567.

Koelble, T. A., 1995. The New Institutionalism in Political Science and Sociology. *Comparative Politics*, 27 (2), 231–243.

Kohler, P. M. and Ashton, M., 2010. Paying for POPs: Negotiating the implementation of the stockholm convention in developing countries. *International Negotiation*, 15 (3), 459–484.

Koremenos, B., Lipson, C., and Snidal, D., 2001. The Rational Design of International Institutions. *International Organization*, 55 (4), 761–799.

Krugman, P., 1991. History and industry location: the case of the manufacturing belt. *American Economic Review*, 81 (2), 80–83.

Kuipers, S., 2009. Paths of the Past or the Road Ahead? Path Dependency and Policy Change in Two Continental European Welfare States. *Journal of Comparative Policy Analysis: Research and Practice*, 11 (2), 163–180.

Kütting, G., 2000. *Environment, Society and International Relations: Towards More Effective International Environmental Agreements*. London, UK & New York, NY, USA: Routledge.

Kuyper, J., Schroeder, H., and Linnér, B.-O., 2018. The UNFCCC. *Annual Review of Environment and Resources*, 43, 15.1-15.26.

Lacy, M. J., 2005. *Security and Climate Change: International relations and the limits of Realism*. Abingdon, UK: Routldege.

Lange, A., Löschel, A., Vogt, C., and Ziegler, A., 2010. On the self-interested use of equity in international climate negotiations. *European Economic Review*, 54, 359–375.

Lemos, M. C. and Boyd, E., 2010. The Politics of Adaptation Across Scales: The Implications of Additionality to Policy Choice and Development. *In*: Boykoff, M. T., ed. *The Politics of Climate Change: A Survey*. Abingdon, UK & New York, NY, USA: Routldege, 96–110.

Levi, M., 1990. A Logic of Institutional Change. *In*: Schweers Cook, K. and Levi, M., eds. *The Limits of Rationality*. Chicago, IL, USA & London, UK: The University of Chicago Press, 402–418.

Levin, K., Cashore, B., Bernstein, S., and Auld, G., 2007. *Playing it Forward: Path Dependency, Progressive Incrementalism, and the "Super Wicked" Problem of Global Climate Change* [online]. International Studies Association Convention, Chicago, Feb 28-Mar 3 2007. Available from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.464.5287&rep=rep1&type=pdf [Accessed 28 Mar 2016].

Levin, K., Cashore, B., Bernstein, S., and Auld, G., 2012. Overcoming the tragedy of super wicked problems: Constraining our future selves to ameliorate global climate change. *Policy Sciences*, 45 (2), 123–152.

Levy, M. A., Young, O. R., and Zürn, M., 1995. The study of international regimes. *European Journal of International Relations*, 1 (3), 267–330.

Li, R., 2011. *Climate talks in Bonn, Monday, June 20, 2011* [online]. Friends of the Earth International. Available from: https://foe.org/2011-06-climate-talks-in-bonn/ [Accessed 25 Apr 2018].

Libecap, G. D., 2011. Institutional Path Dependence in Climate Adaptation: Coman's "Some Unsettled Problems of Irrigation". *American Economic Review*, 101 (February), 1–19.

Lockwood, M., Davidson, J., Curtis, A., Stratford, E., and Griffith, R., 2010. Governance Principles for Natural Resource Management. *Society and Natural Resources*, 23 (10), 986–1001.

Löfquist, L., 2011. Climate change, justice and the right to development. *Journal of Global Ethics*, 7 (3), 251–260.

Lombo, M., Ntombela, S., Okem, A. E., and Bracking, S., 2016. *A Review of Contested Perspectives on Climate Change Finance*. Technical Research Report 2016 No. 5. KwaZulu-Natal, SA: School of Built Environment and Development Studies, University of KwaZulu-Natal.

Lövbrand, E., Hjerpe, M., and Linnér, B.-O., 2017. Making climate governance global: how UN climate summitry comes to matter in a complex climate regime. *Environmental Politics*, 26 (4), 580–599.

Mace, M., 2005. Funding for adaptation to climate change: UNFCCC and GEF developments since COP-7. *Review of European Community and International Environmental Law (RECIEL)*, 14 (3), 225–246.

MacIlwain, C., 1993. Deep divisions complicate global environment meeting. *Nature*, 363, 199.

Mahoney, J., 2000. Path Dependence in Historical Sociology. *Theory and Society*, 29 (4), 507–548.

Mahoney, J. and Thelen, K., 2009. A Theory of Gradual Institutional Change. *In*: Mahoney, J. and Thelen, K., eds. *Explaining Institutional Change: Ambiguity, Agency, and Power*. New York, NY, USA: Cambridge University Press, 1–37.

March, J. G. and Olsen, J. P., 1984. The New Institutionalism: Organizational Factors in Political Life. *The American Political Science Review*, 78 (3), 734–749.

Martin, L. L. and Simmons, B. A., 1998. Theories and Empirical Studies of International Institutions. *International Organization*, 52 (4), 729–757.

Martin, L. L. and Simmons, B. A., 2012. International Organizations and Institutions. *In*: Carlsnaes, W., Risse, T., and Simmons, B. A., eds. *Handbook of International Relations*. London, UK: SAGE, 326–351.

Martinez-Alier, J., 2002. *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing.

Matsui, Y., 2002. Some Aspects of the Principle of "Common but Differentiated Responsibilities". *International Environmental Agreements: Politics, Law and Economics*, 2 (2), 151–171.

Matthews, H. D., 2016. Quantifying historical carbon and climate debts among nations. *Nature Climate Change*, 6, 60–64.

Matthews, H. D., Graham, T. L., Keverian, S., Lamontagne, C., Seto, D., and Smith, T. J., 2014. National contributions to observed global warming. *Environmental Research Letters*, 9 (1–9).

Mauldin, W., 2015. China's Xi Wants More Funds From Rich Nations in Climate Deal. *Wall Street Journal* [online], 30 November 2015. Available from: https://www.wsj.com/articles/chinas-xi-wants-more-funds-from-rich-nations-in-climate-deal-1448892347 [Accessed 30 Jul 2019].

May, P. J., 1992. Policy Learning and Failure. *Journal of Public Policy*, 12 (4), 331–354.

McKinsey & Company, 2009. *Pathways to a Low-Carbon Economy: Version 2 of the Global Greenhouse Gas Abatement Cost Curve* [online]. New York, NY, USA: McKinsey & Company. Available from: https://www.mckinsey.com/~/media/McKinsey/Business Functions/Sustainability and Resource Productivity/Our Insights/Pathways to a low carbon economy/Pathways to a low carbon economy.ashx [Accessed 22 Sep 2018].

Mcmichael, P., 2009. Contemporary Contradictions of the Global Development Project: geopolitics, global ecology and the 'development climate'. *Third World Quarterly*, 30 (1), 247–262.

Mearsheimer, J. J., 1994. The False Promise of International Institutions. *International Security*, 19 (3), 5–49.

Meyer, L. H. and Roser, D., 2010. Climate justice and historical emissions. *Critical Review of International Social and Political Philosophy*, 13 (1), 229–253.

Michaelowa, A. and Michaelowa, K., 2007a. Climate or development: is ODA diverted from its original purpose ? *Climatic Change*, 84 (5), 5–21.

Michaelowa, A. and Michaelowa, K., 2007b. Does climate policy promote development? *Climatic Change*, 84, 1–4.

Mickelson, K., 2000. South, North, International Environmental Law, and International Environmental Lawyers. *Yearbook of International Environmental Law*, 11, 52–81.

Mickelson, K., 2009. Beyond a Politics of the Possible? South-North Relations and Climate Justice. *Melbourne Journal of International Law*, 10, 411–423.

Miguez, J. D., 2002. Equity, responsibility and climate change. *In*: Pinguelli-Rosa, L. and Munasinghe, M., eds. *Ethics, Equity and International Negotiations on Climate Change*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing, 36–46.

Mitchell, R. B., 2003. International Environmental Agreements: A Survey of Their Features, Formation, and Effects. *Annual Review of Environment and Resources*, 28, 429–461.

Mitchell, R. B., 2006. Problem Structure, Institutional Design, and the Relative Effectiveness of International Environmental Agreements. *Global Enviornmental Politics*, 6 (3), 72–89.

Mitchell, R. B., 2013. Oran Young and international institutions. *International Environmental Agreements: Politics, Law and Economics*, 13 (1), 1–14.

Mitchell, T., Anderson, S., and Huq, S., 2008. *Principles for Delivering Adaptation Finance* [online]. Brighton, UK: Institute of Development Studies. Available from: https://www.ids.ac.uk/files/dmfile/AdaptationFinanceBriefingfinal2.pdf [Accessed 4 Nov 2016].

Moellendorf, D., 2012. Climate change and global justice. *Wiley Interdisciplinary Reviews: Climate Change*, 3, 131–143.

Möhner, A. and Klein, R. J., 2007. *The Global Environment Facility: Funding for Adaptation or Adapting to Funds?* [online]. Geneva, CH: Stockholm Environment Institute. Available from: http://sei-international.net/mediamanager/documents/Publications/Climate/the_global_environment_facility_funding_adaptation.pdf [Accessed 4 Nov 2016].

Moore, F. C., 2012. Costing Adaptation: Revealing Tensions in the Normative Basis of Adaptation Policy in Adaptation Cost Estimates. *Science, Technology & Human Values*, 37 (2), 171–198.

Müller, B., 2001. Varieties of Distributive Justice in Climate Change: An Editorial Comment. *Climatic Change*, 48, 273–288.

Müller, B., 2006. *Montreal 2005: What Happened, and What it Means* [online]. EV 35. Oxford, UK: Oxford Institute for Energy Studies. Available from: https://www.oxfordenergy.org/publications/montreal-2005-what-happened-and-what-it-means/ [Accessed 2 Jul 2018].

Müller, B., 2007. *Nairobi 2006: Trust and the Future of Adaptation Funding* [online]. EV 38. Oxford, UK: Oxford Institute for Energy Studies. Available from: https://www.oxfordenergy.org/publications/nairobi-2006-trust-and-the-future-of-adaptation-funding/ [Accessed 24 Apr 2018].

Müller, B., 2008a. *International Adaptation Finance: The Need for an Innovative and Strategic Approach* [online]. Oxford, UK: Oxford Institute for Energy Studies. No. EV 42. Available from: http://www.oxfordclimatepolicy.org/publications/mueller.shtml [Accessed 10 November 2017].

Müller, B., 2008b. *Bali 2007: On the road again! Impressions from the Thirteenth UN Climate Change Conference* [online]. Oxford Energy and Environment Comment. Oxford, UK: Oxford Institute for Energy Studies. Available from: https://www.oxfordenergy.org/publications/bali-2007-on-the-road-again/?v=79cba1185463 [Accessed 22 November 2016].

Müller, B., 2011. Time to roll up the sleeves – even higher! Longer-term climate finance after Cancun. *Environmental Liability*, 1, 3–7.

Müller, B., 2013. *'Enhanced (Direct) Access' Through '(National) Funding Entities' - Etymology and Examples* [online]. Information Note on the Green Climate Fund Business Model Framework. Oxford, UK: Oxford Institute for Energy Studies. Available from: http://www.oxfordclimatepolicy.org/publications/documents/EnhancedDirectAccess-04-2013.pdf [Accessed 22 Nov 2016].

Müller, B. and Gomez-Echeverri, L., 2009. *The Reformed Financial Mechanism of the UNFCCC, Part I: Architecture and Governance* [online]. EV 45. Oxford, UK: Oxford Institute for Energy Studies. Available from: http://www.oxfordclimatepolicy.org/publications/documents/EV45.pdf [Accessed 11 Apr 2016].

Müller, B., Höhne, N., and Ellermann, C., 2009. Differentiating (historic) responsibilities for climate change. *Climate Policy*, 9 (6), 593–611.

Munck af Rosenschöld, J., Rozema, J. G., and Frye-Levine, L. A., 2014. Institutional inertia and climate change: A review of the new institutionalist literature. *Wiley Interdisciplinary Reviews: Climate Change*, 5, 639–648.

Mustalahti, I., Bolin, A., Boyd, E., and Paavola, J., 2012. Can REDD+ Reconcile Local Priorities and Needs with Global Mitigation Benefits? Lessons from Angai Forest, Tanzania. *Ecology and Society*, 17 (1).

Naess, L. O., Newell, P., Newsham, A., Phillips, J., Quan, J., and Tanner, T., 2015. Climate policy meets national development contexts: Insights from Kenya and Mozambique. *Global Environmental Change*, 35, 534–544.

Nagoda, S., 2015. New discourses but same old development approaches? Climate change adaptation policies, chronic food insecurity and development interventions in northwestern Nepal. *Global Environmental Change*, 35, 570–579.

Najam, A., 2002. Unraveling of the Rio Bargain. *Politics and the Life Sciences*, 21 (2), 46–50.

Najam, A., 2005. Developing Countries and Global Environmental Governance: From Contestation to Participation to Engagement. *International Environmental Agreements: Politics, Law and Economics*, 5, 303–321.

Najam, A., Huq, S., and Sokona, Y., 2003. Climate negotiations beyond Kyoto: Developing countries concerns and interests. *Climate Policy*, 3 (3), 221–231.

Najam, A., Papa, M., and Taiyab, N., 2006. *Global Environmental Governance: A Reform Agenda* [online]. Manitoba, CA: International Institute for Sustainable Development. Available from: http://www.iisd.org/library/global-environmental-governance-reform-agenda [Accessed 18 Jul 2016].

Narain, U., Margulis, S., and Essam, T., 2011. Estimating costs of adaptation to climate change. *Climate Policy*, 11 (3), 1001–1019.

Nasiritousi, N. and Linnér, B.-O., 2016. Open or closed meetings? Explaining nonstate actor involvement in the international climate change negotiations. *International Environmental Agreements: Politics, Law and Economics*, 16 (1), 127–144.

Neumayer, E., 2000. In defence of historical accountability for greenhouse gas emissions. *Ecological Economics*, 33, 185–192.

Newell, P., 2004. Climate Change and Development: A Tale of Two Crises. *IDS Bulletin*, 35 (3), 120–126.

Newell, P., 2005. Race, Class and the Global Politics of Environmental Inequality. *Global Enviornmental Politics*, 5 (5), 70–95.

Newell, P., 2015. Political Economy. *In*: Bäckstrand, K. and Lövbrand, E., eds. *Research Handbook on Climate Governance*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing, 25–35.

Newell, P. and Bumpus, A., 2012. The Global Political Ecology of the Clean Development Mechanism. *Global Enviornmental Politics*, 12 (4), 49–67.

Newell, P. and Levy, D., 2002. Business strategy and international environmental governance: toward a neo-Gramscian synthesis. *Global Environmental Politics*, 2 (4), 84–101.

Newell, P. and Mulvaney, D., 2013. The political economy of the 'just transition'. *Geographical Journal*, 179 (2), 132–140.

Newig, J. and Fritsch, O., 2009. Environmental Governance: Participatory, Multi-Level - and Effective? *Environmental Policy and Governance*, 19, 197–214.

Ngwadla, X., 2013. *Equitable Access to Sustainable Development: Relevance to negotiations and actions on climate change*. Research Paper, Issue 10. Cape Town, SA: Mitigation Action Plans & Scenarios.

Nitze, W. A., 1994. A Failure of Presidential Leadership. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, AU: Cambridge University Press, 187–200.

North, D. C., 1990. *Institutions, Institutional Change and Economic Performance*. New York, NY, USA: Cambridge University Press.

North, D. C., 1991. Institutions. *Journal of Economic Perspectives*, 5 (1), 97–112.

Nurse, L. and Moore, R., 2005. Adaptation to Global Climate Change: An Urgent Requirement for Small Island Developing States. *Review of European Community and International Environmental Law (RECIEL)*, 14 (2), 100–107.

O'Neill, K., 2009. *The Environment and International Relations*. Cambridge, UK & New York, NY, USA: Cambridge University Press.

O'Riordan, T. and Cameron, J., eds., 1994. *Interpreting the Precautionary Principle (Vol. 2)*. Abingdon, UK: Earthscan.

O'Riordan, T. and Jordan, A., 1999. Institutions, climate change and cultural theory: Towards a common analytical framework. *Global Environmental Change*, 9 (2), 81–93.

Obergassel, W., Arens, C., Hermwille, L., Kreibich, N., Mersmann, F., Ott, H. E., and Wang-Helmreich, H., 2015. Phoenix from the Ashes: An Analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change - Part I. *Environmental Law & Management*, 27, 243–262.

Oberthür, S., 2001. Linkages between the Montreal and Kyoto Protocols: Enhancing Synergies between Protecting the Ozone Layer and the Global Climate. *International Environmental Agreements: Politics, Law and Economics*, 1, 357–377.

Oberthür, S., 2002. Clustering of Multilateral Environmental Agreements: Potentials and Limitations. *International Environmental Agreements: Politics, Law and Economics*, 2, 317–340.

OECD-DAC, 2011. *Tracking aid in support of climate change mitigation and adaptation in developing countries* [online]. Paris, FR: Development Assistance Committee of the Organization for Economic Co-Operation and Development. Available from: https://www.oecd.org/dac/stats/documentupload/48708083.pdf [Accessed 21 Sep 2016].

OECD, 2011. *Development Perspectives for a Post-2012 Climate Financing Architecture* [online]. Paris, FR: Organisation for Economic Co-Operation and Development. Available from: http://www.oecd.org/greengrowth/green-development/47115936.pdf [Accessed 21 Sep 2016].

OECD, 2015. *Climate-related development finance in 2013: Improving the statistical picture (Update June 2015)* [online]. Paris, FR: Organisation for Economic Co-Operation and Development. Available from: http://www.oecd.org/dac/environment-development/Climate-related development finance_ENG_June2015_July2015.pdf [Accessed 22 Sep 2016].

Okereke, C., 2006. Global environmental sustainability: Intragenerational equity and conceptions of justice in multilateral environmental regimes. *Geoforum*, 37, 725–738.

Okereke, C., 2008. Equity Norms in Global Environmental Governance. *Global Environmental Politics*, 8 (3), 25–50.

Okereke, C., 2009. The Politics of Interstate Climate Negotiations. *In*: Boykoff, M. T., ed. *The Politics of Climate Change: A Survey*. Abingdon, UK: Routldege, 42–61.

Okereke, C., 2010. Climate justice and the international regime. *Wiley Interdisciplinary Reviews: Climate Change*, 1, 462–474.

Okereke, C., 2014. A changing climate and African development. *In*: Desai, V. and Potter, R. B., eds. *The Companion to Development Studies*. Abingdon, UK & New York, NY, USA: Routldege, 246–351.

Okereke, C., 2018. Equity and Justice in Polycentric Climate Governance. *In*: Jordan, A., Huitema, D., van Asselt, H., and Forster, J., eds. *Governing Climate Change: Polycentricity in Action?* Cambridge, UK: Cambridge University Press, 320–337.

Okereke, C., Bulkeley, H., and Schroeder, H., 2009. Conceptualizing Climate Governance Beyond the International Regime. *Global Environmental Politics*, 9 (1), 58–78.

Okereke, C. and Charlesworth, M., 2014. Environmental and Ecological Justice. *In*: Betsill, M. M., Hochstetler, K., and Dimitris, S., eds. *Advances in International Environmental Politics*. Basingstoke, UK & New York, NY, USA: Palgrave Macmillan, 328–355.

Okereke, C. and Coventry, P., 2016. Climate justice and the international regime: before, during, and after Paris. *Wiley Interdisciplinary Reviews: Climate Change*, 7, 834–851.

Okereke, C. and Schroeder, H., 2009. How can justice, development and climate change mitigation be reconciled for developing countries in a post-Kyoto settlement? *Climate and Development*, 1 (1), 10–15.

Okubo, Y. and Michaelowa, A., 2010. Effectiveness of subsidies for the Clean Development Mechanism: Past experiences with capacity building in Africa and LDCs. *Climate and Development*, 2 (1), 30–49.

Olbrisch, S., Haites, E., Savage, M., Dadhich, P., and Shrivastava, M. K., 2011. Estimates of incremental investment for and cost of mitigation measures in developing countries. *Climate Policy*, 11 (3), 970–986.

Olsen, K. H., 2007. The clean development mechanism's contribution to sustainable development: A review of the literature. *Climatic Change*, 84 (1), 59–73.

Orenstein, K., 2015. *112 groups demand grants and honest accounting for rich countries' promised $100 billion in climate finance* [online]. Friends of the Earth International. Available from: https://foe.org/2015-10-groups-write-donor-countries-about-100-billion-clima-2/ [Accessed 23 May 2018].

Oreskes, N., 2004. The Scientific Consensus on Climate Change. *Science*, 306, 1686.

Ostrom, E., 2008. The Challenge of Common-Pool Resources. *Environment*, 50 (4), 8–20.

Paavola, J., 2005. Seeking Justice: International Environmental Governance and Climate Change. *Globalizations*, 2 (3), 309–322.

Paavola, J., 2007. Institutions and environmental governance: A reconceptualization. *Ecological Economics*, 63, 93–103.

Paavola, J., 2008. Science and social justice in the governance of adaptation to climate change. *Environmental Politics*, 17 (4), 644–659.

Paavola, J. and Adger, W. N., 2005. Institutional ecological economics. *Ecological Economics*, 53 (3), 353–368.

Paavola, J. and Adger, W. N., 2006. Fair adaptation to climate change. *Ecological Economics*, 56, 594–609.

Page, E., 2011. Climatic Justice and the Fair Distribution of Atmospheric Burdens: A Conjunctive Account. *The Monist*, 94 (3), 412–432.

Page, E. A., 2008. Distributing the burdens of climate change. *Environmental Politics*, 17 (4), 556–575.

Page, S., 2006. Path Dependence. *Quarterly Journal of Political Science*, 1, 87–115.

Parks, B. C. and Roberts, J. T., 2008. Inequality and the global climate regime: breaking the north-south impasse. *Cambridge Review of International Affairs*, 21 (4), 621–648.

Parks, B. C. and Roberts, J. T., 2010. Climate Change, Social Theory and Justice. *Theory, Culture & Society*, 27 (2–3), 134–166.

Parnell, S., 2014. *The (Missing) Link: Climate Change Mitigation and Poverty* [online]. Research Paper, Issue 23. Cape Town, SA: MAPS: Mitigation Action Plans & Scenarios. Available from: http://www.mapsprogramme.org/category/publications/papers/ [Accessed 22 Sep 2018].

Parry, M., Arnell, N., Berry, P., Dodman, D., Fankhauser, S., Hope, C., Kovats, S., Nicholls, R., Satterthwaite, D., Tiffin, R., and Wheeler, T., 2009. *Assessing the costs of adaptation to climate change: A review of the UNFCCC and other recent estimates* [online]. London, UK: International Institute for Environment and Development & International Institute for Environment and Development, London, and the Grantham Institute for Climate Change, Imperial College London. Available from: http://pubs.iied.org/pdfs/11501IIED.pdf [Accessed 17 Apr 2017].

Pashley, A., 2015. *Green Climate Fund partners with Deutsche Bank to green fury* [online]. Climate Home. Available from: http://www.climatechangenews.com/2015/07/09/green-climate-fund-partners-with-deutsche-bank-to-green-fury/ [Accessed 22 Sep 2016].

Paterson, M., 1996a. International Justice and Global Warming. *In*: Holden, B., ed. *The Ethical Dimensions of Global Change*. Basingstoke, UK: Macmillan Press Ltd & New York, NY, USA: St. Martin's Press, Inc., 181–201.

Paterson, M., 1996b. *Global Warming and Global Politics*. London, UK & New York, NY, USA: Routledge.

Paterson, M., 2000. *Understanding Global Environmental Politics*. Basingstoke, UK: Macmillan Press Ltd & New York, NY, USA: St. Martin's Press, Inc.

Paterson, M., 2011. Selling carbon: From international climate regime to global carbon market. *In*: Dryzek, J. S., Norgaard, R. B., and Schlosberg, D., eds. *The Oxford Handbook of Climate Change and Society*. Oxford, UK: Oxford University Press, 611–624.

Paterson, M. and Grubb, M., 1992. The International Politics of Climate Change. *International Affairs*, 68 (2), 293–310.

Patt, A., van Vliet, O., Lilliestam, J., and Pfenninger, S., 2019. Will policies to promote energy efficiency help or hinder achieving a 1.5 °C climate target? *Energy Efficiency*, 12, 551–565.

Pattanayak, A. and Kumar, K. K., 2015. Accounting for impacts due to climate change in GHG mitigation burden sharing. *Climate Policy*, 15 (6), 724–742.

Pauw, W., Klein, R. J., Mbeva, K., Dzebo, A., Cassanmagnago, D., and Rudloff, A., 2018. Beyond headline mitigation numbers: we need more transparent and comparable NDCs to achieve the Paris Agreement on climate change. *Climatic Change*, 147, 23–29.

Pauw, W., Klein, R., Vellinga, P., and Biermann, F., 2015. Private finance for adaptation: do private realities meet public ambitions? *Climatic Change*, 134, 489–503.

Pauw, W. P., 2017. Mobilising private adaptation finance: developed country perspectives. *International Environmental Agreements: Politics, Law and Economics*, 17, 55–71.

Peake, S. and Ekins, P., 2017. Exploring the financial and investment implications of the Paris Agreement. *Climate Policy*, 17 (7), 832–852.

Pendleton, A. and Retallack, S., 2009. *Fairness in Global Climate Change Finance* [online]. London, UK: Institute for Public Policy Research. Available from: https://www.ippr.org/publications/fairness-in-global-climate-change-finance [Accessed 24 Oct 2016].

Pereira, J., Orenstein, K., and Chan, M., 2013. *Pro-poor Climate Finance: Is There a Role for Private Finance in the Green Climate Fund?* [online]. Washington, D.C., USA: Friends of the Earth International,. Available from: https://foe.org/resources/additionality-leveraging-private-finance/ [Accessed 18 May 2018].

Persson, Å, 2011. *Institutionalising climate adaptation finance under the UNFCCC and beyond: Could an adaptation 'market' emerge?* [online]. Working Paper No. 2011-03. Stockholm, SE: Stockholm Environment Institute. Available from: https://www.sei.org/publications/institutionalising-climate-adaptation-finance-under-the-unfccc-and-beyond-could-an-adaptation-market-emerge/ [Accessed 10 Dec 2018].

Persson, A. and Remling, E., 2014. Equity and efficiency in adaptation finance: initial experiences of the Adaptation Fund. *Climate Policy*, 14 (4), 488–506.

Pettit, J., 2004. Climate Justice: A New Social Movement for Atmospheric Rights. *IDS Bulletin*, 35.3, 102–106.

Pickering, J., Betzold, C., and Skovgaard, J., 2017. Special issue: managing fragmentation and complexity in the emerging system of international climate finance. *International Environmental Agreements: Politics, Law and Economics*, 17 (1), 1–16.

Pickering, J., Jotzo, F., and Wood, P. J., 2015. Sharing the Global Climate Finance Effort Fairly with Limited Coordination. *Global Environmental Politics*, 15 (4), 39–62.

Pickering, J., Skovgaard, J., Kim, S., Roberts, J. T., Rossati, D., Stadelmann, M., and Reich, H., 2015. Acting on climate finance pledges: Inter-agency dynamics and relationships with aid in contributor states. *World Development*, 68, 149–162.

Pierson, P., 1994. When Effect Becomes Cause: Policy Feedback and Political Change. *World Politics*, 45 (4), 595–628.

Pierson, P., 2000. Increasing Returns, Path Dependence, and the Study of Politics. *The American Political Science Review*, 94 (2), 251–267.

Pierson, P., 2004. *Politics in Time: History, Institutions, and Social Analysis*. Princeton, NJ, USA: Princeton University Press.

Pittel, K. and Rübbelke, D., 2013. International Climate Finance and Its Influence on Fairness and Policy. *The World Economy*, 419–436.

Van Praag, N., 1994. The Global Environment Facility: Instrument Establishing. *International Legal Materials*, 33 (5), 1273–1308.

Prys-Hansen, M. and Franz, B., 2015. Change and Stasis: The Institutionalisation of Developing Country Mitigation in the International Climate Regime. *Diplomacy & Statecraft*, 26 (4), 696–718.

Prys, M. and Wojczewski, T., 2015. Rising Powers, NGOs and North–South Relations in Global Climate Governance: The Case of Climate Finance. *Politikon*, 42 (1), 93–111.

Purdon, M., 2014. Neoclassical realism and international climate change politics: moral imperative and political constraint in international climate finance. *Journal of International Relations and Development*, 17, 301–338.

Rahman, A. and Roncerel, A., 1994. A View from the Ground Up. *In*: Mintzer, I. M. and Leonard, J. A., eds. *Negotiating climate change: the inside story of the Rio Convention*. Cambridge, UK, New York, NY, USA & Melbourne, AU: Cambridge University Press, 239–273.

Rajamani, L., 2000. The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime. *Review of European Community and International Environmental Law (RECIEL)*, 9 (2), 120–131.

Ravindranath, N. and Sathaye, J., 2002. *Climate Change and Developing Countries*. Dordrecht, NL: Kluwer Academic Publishers.

Rayner, J., 2009. Understanding Policy Change as a Historical Problem. *Journal of Comparative Policy Analysis: Research and Practice*, 11 (1), 83–96.

Rayner, T. and Okereke, C., 2007. The Politics of Climate Change. *In*: Okereke, C., ed. *The Politics of the Environment: A Survey*. London, UK: Routledge, 116–135.

Reed, D., 1993. The Global Environment Facility and Non- Governmental Organizations. *American University Journal International Law Review*, 9 (1), 191–213.

Remling, E. and Persson, Å, 2015. Who is adaptation for? Vulnerability and adaptation benefits in proposals approved by the UNFCCC Adaptation Fund. *Climate and Development*, 7 (1), 16–34.

Reyes, O., 2012. *Critical Issues for Channelling Climate Finance via Private Sector Actors* [online]. Report commissioned by the Bond Development and Environment Group. London, UK: Bond for International Development. Available from: http://www.ejeepney.org/wp-content/uploads/2013/06/Critical-issues-for-channelling-climate-finance-via-private-sector-actors.pdf [Accessed 28 Oct 2016].

Rice, J., 2009. North—South Relations and the Ecological Debt: Asserting a Counter-Hegemonic Discourse. *Critical Sociology*, 35 (2), 225–252.

Richards, M., 2001. *A Review of the Effectiveness of Developing Country Participation in the Climate Change Convention Negotiations* [online]. Forest Policy and Environment Group. London, UK: Overseas Development Institute. Available from: https://www.odi.org/projects/1495-effective-participation-developing-countries-international-governance-and-institutions [Accessed 20 Jul 2018].

Richards, M., 2003. *Poverty Reduction, Equity and Climate Change: Global Governance Synergies or Contradictions?* [online]. Globalisation and Poverty Programme. London, UK: Overseas Development Institute. Available from: https://www.odi.org/publications/1682-poverty-reduction-equity-and-climate-change-global-governance-synergies-or-contradictions [Accessed 18 Dec 2016].

Richardson, B. J., 2009. Climate finance and its governance: Moving to a low carbon economy through socially responsible financing? *International and Comparative Law Quarterly*, 58 (3), 597–626.

Rietig, K., 2014. Reinforcement of multilevel governance dynamics: creating momentum for increasing ambitions in international climate negotiations. *International Environmental Agreements: Politics, Law and Economics*, 14, 371–389.

Rixen, T. and Viola, L. A., 2016. Historical Institutionalism and International Relations: Towards Explaining Change and Stability in International Relations. *In*: Rixen, T., Viola, L. A., and Zürn, M., eds. *Historical Institutionalism and International Relations: Explaining Institutional Development in World Politics*. Oxford, UK: Oxford University Press, 5–34.

Rixen, T., Viola, L. A., and Zürn, M., eds., 2016. *Historical Institutionalism and International Relations: Explaining Institutional Development in World Politics*. Oxford, UK: Oxford University Press.

Roberts, J. T., 2009. The International Dimension of Climate Justice and the Need for International Adaptation Funding. *Environmental Justice*, 2 (4), 185–190.

Roberts, J. T. and Parks, B. C., 2007. *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy*. Cambridge, MA, USA: MIT Press.

Roberts, J. T. and Parks, B. C., 2009. Ecologically Unequal Exchange, Ecological Debt, and Climate Justice: The History and Implications of Three Related Ideas for a New Social Movement. *International Journal of Comparative Sociology*, 50 (3–4), 385–409.

Roberts, J. T., Stadelmann, M., and Huq, S., 2010. *Copenhagen's climate finance promise: six key questions* [online]. IIED Briefing. London, UK: International Institute for Environment and Development. Available from: https://pubs.iied.org/pdfs/17071IIED.pdf [Accessed 10 Apr 2019].

Roberts, J. T. and Weikmans, R., 2017. Postface: fragmentation, failing trust and enduring tensions over what counts as climate finance. *International Environmental Agreements: Politics, Law and Economics*, 17 (1), 129–137.

Rogers, D., 2010. Climate Change and the Threat to Development. *In*: Ansohn, A. and Pleskovic, B., eds. *Climate Governance and Development*. Washington, D.C., USA: World Bank, 107–119.

Rübbelke, D. T., 2011. International support of climate change policies in developing countries: Strategic, moral and fairness aspects. *Ecological Economics*, 70, 1470–1480.

Ruckelshaus, W. D., 1989. Toward a Sustainable World. *Scientific American*, 261 (3), 166–175.

Sachs, B., 2014. The Relevance of Distributive Justice to International Climate Change Policy. *Ethics, Policy & Environment*, 17 (2), 208–224.

Sanders, E., 2008. Historical Institutionalism. *In*: Binder, S. A., Rhodes, R., and Rockman, B. A., eds. *The Oxford Handbook of Political Institutions*. Oxford, UK: Oxford University Press, 39–55.

Schalatek, L., 2010. *A Matter of Principle(s): A Normative Framework for a Global Compact on Public Climate Finance* [online]. Washington, D.C., USA: Heinrich Böll Stiftung. Available from: http://www.pk.boell.org/web/52-639.html [Accessed 10 Apr 2019].

Schalatek, L., 2012. Democritizing climate finance governance and the public funding of climate action. *Democratization*, 19 (5), 951–973.

Schalatek, L., 2018. *"Back to the Future" for GCF After Recent Bahrain Board Meeting*. Heinrich-Böll-Stiftung North America.

Schalatek, L. and Bird, N., 2016. *The Principles and Criteria of Public Climate Finance - A Normative Framework* [online]. Climate Finance Fundamentals 1. London, UK: Overseas Development Institute & Washington, D.C., USA: Heinrich Böll Stiftung. Available from: https://www.odi.org/publications/10606-principles-and-criteria-public-climate-finance-normative-framework [Accessed 14 Jun 2018].

Schipper, L., 2006. Conceptual History of Adaptation in the UNFCCC Process. *Review of European Community and International Environmental Law (RECIEL)*, 15 (1), 82–92.

Schipper, L. and Boyd, E., 2006. UNFCCC COP 11 and COP/MOP 1: At Last, Some Hope? *The Journal of Environment & Development*, 15 (1), 75–90.

Schlosberg, D., 2012. Climate Justice and Capabilities: A Framework for Adaptation Policy. *Ethics & International Affairs*, 26 (4), 445–461.

Schroeder, H., 2010. Agency in international climate negotiations: The case of indigenous peoples and avoided deforestation. *International Environmental Agreements: Politics, Law and Economics*, 10, 317–332.

de Sépibus, J., 2015. Green Climate Fund: How Attractive Is It to Donor Countries? *Carbon & Climate Law Review: CCLR*, 9 (4), 298–313.

Severino, J.-M. and Ray, O., 2009. *The End of ODA: Death and Rebirth of a Global Public Policy* [online]. Working Paper No. 167. Washington, D.C., USA: Center for Global Development. Available from: http://www.cgdev.org/content/general/detail/1421419/ [Accessed 8 Oct 2018].

Sharma, A., 2017. Precaution and post-caution in the Paris Agreement: adaptation, loss and damage and finance. *Climate Policy*, 17 (1), 33–47.

Shue, H., 1992. The Unavoidability of Justice. *In*: Hurrell, A. and Kingsbury, B., eds. *The International Politics of the Environment: Actors, Interests, and Institutions*. Oxford, UK: Oxford University Press, 373–397.

Shue, H., 1993. Subsistence Emissions and Luxury Emissions. *Law and Policy*, 15 (1), 39–59.

Siebenhüner, B., 2008. Learning in International Organizations in Global Environmental Governance. *Global Environmental Politics*, 8 (4), 92–116.

Simmons, B. A. and Haggard, S., 1987. Theories of International Regimes. *International Organization*, 41 (3), 491–518.

Singer, P., 1972. Famine, Affluence, and Morality. *Philosophy & Public Affairs*, 1 (3), 229–243.

Sjöberg, H., 1999. *Restructuring the Global Environment Facility* [online]. Working Paper 13. Washington, D.C., USA: Global Environment Facility. Available from: http://documents.worldbank.org/curated/en/335511487673481446/pdf/109668-NWP-13-Box396324B-PUBLIC.pdf [Accessed 18 Jun 2018].

Skeie, R. B., Fuglestvedt, J., Berntsen, T., Peters, G. P., Andrew, R., Allen, M., and Kallbekken, S., 2017. Perspective has a strong effect on the calculation of historical contributions to global warming. *Environmental Research Letters*, 12, 1–10.

Skocpol, T., 1995. Why I Am an Historical Institutionalist. *Polity*, 28 (1), 103–106.

Skolnikoff, E. B., 1990. The Policy Gridlock on Global Warming. *Foreign Policy*, 79, 77–93.

Smith, J. B., Dickinson, T., Donahue, J. D., Burton, I., Klein, R. J., and Patwardhan, A., 2011. Development and climate change adaptation funding: coordination and integration. *Climate Policy*, 11 (3), 987–1000.

Stadelmann, M., Michaelowa, A., and Roberts, J. T., 2013. Difficulties in accounting for private finance in international climate policy. *Climate Policy*, 13 (6), 718–737.

Stadelmann, M., Roberts, J. T., and Huq, S., 2010. *Baseline for trust: defining 'new and additional' climate funding* [online]. IIED Briefing. London, UK: International Institute for Environment and Development. Available from: http://pubs.iied.org/pdfs/17080IIED.pdf [Accessed 4 Nov 2016].

Stadelmann, M., Roberts, J. T., and Michaelowa, A., 2011. New and additional to what? Assessing options for baselines to assess climate finance pledges. *Climate and Development*, 3 (3), 175–192.

Stein, A. A., 1982. Coordination and Collaboration: Regimes in an Anarchic World. *International Organization*, 36 (2), 299–324.

Steinmo, S., 2008. What is Historical Institutionalism? *In*: Della Porta, D. and Keating, M., eds. *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*. Cambridge, UK: Cambridge University Press, 118–138.

Sterk, W., Luhmann, H.-J., and Mersmann, F., 2011. *How Much Is 100 Billion US Dollars? Climate Finance between Adequacy and Creative Accounting* [online]. International Policy Analysis. Berlin, DE: Friedrich Ebert Stiftung. Available from: http://library.fes.de/pdf-files/iez/08158.pdf [Accessed 14 Jun 2018].

Stern, N., 2009a. *The Economics of Climate Change: The Stern Review*. Cambridge, UK: Cambridge University Press.

Stern, N., 2009b. *A Blueprint for a Safer Planet: How to Manage Climate Change and Create a New Era of Progress and Prosperity*. London, UK: The Bodley Head.

Stevenson, H. and Dryzek, J. S., 2012a. The discursive democratisation of global climate governance. *Environmental Politics*, 21 (2), 189–210.

Stevenson, H. and Dryzek, J. S., 2012b. The legitimacy of multilateral climate governance: A deliberative democratic approach. *Critical Policy Studies*, 6 (1), 1–18.

Stevenson, H. and Dryzek, J. S., 2014. *Democratizing Global Climate Governance*. Cambridge, UK & New York, NY, USA: Cambridge University Press.

Stewart, R. B., Kingsbury, B., and Rudyk, B., 2009. *Climate Finance: Key Concepts and Ways Forward* [online]. Viewpoints. Cambridge, MA, USA: Harvard Project on International Climate Agreements. Available from: https://www.iilj.org/publications/climate-finance-key-concepts-ways-forward/ [Accessed 14 Jun 2018].

Strange, S., 1982. Cave! Hic Dragones: A Critique of Regime Analysis. *International Organization*, 36 (2), 479–496.

Streck, C., 2001. The Global Environment Facility - a Role Model for International Governance? *Global Enviornmental Politics*, 1 (2), 71–94.

Streck, C., 2012. Struggling With Expectations and Changing Realities: International Climate Negotiations. *The Journal of Environment & Development*, 21 (1), 52–56.

Streck, C. and Terhalle, M., 2013. The changing geopolitics of climate change. *Climate Policy*, 13 (5), 533–537.

Streek, W. and Thelen, K., 2005a. Introduction: Institutional Change in Advanced Political Economies. *In*: Streek, W. and Thelen, K., eds. *Beyond Continuity: Institutional Change in Advanced Political Economies*. Oxford, UK: Oxford University Press, 1–49.

Streek, W. and Thelen, K., eds., 2005b. *Beyond Continuity: Institutional Change in Advanced Political Economies*. Oxford, UK: Oxford University Press.

Swart, R., Robinson, J., and Cohen, S., 2003. Climate change and sustainable development: expanding the options. *Climate Policy*, 3, S19–S40.

Sydow, J., Windeler, A., Müller-Seitz, G., and Lange, K., 2012. Path Constitution Analysis: A Methodology for Understanding Path Dependence and Path Creation. *BuR - Business Research*, 5 (2), 155–176.

Tan, C., 2008. *No Additionality, New Conditionality: A Critique of the World Bank's Climate Investment Funds* [online]. Briefing Paper No. 2, Climate Change Subsidiary Bodies' Sessions 2-13 June 2008, Bonn. Penang, MY: Third World Network. Available from: https://www.twn.my/bonn.briefings.htm [Accessed 8 Oct 2018].

Tanner, T. and Allouche, J., 2011. Towards a New Political Economy of Climate Change and Development. *IDS Bulletin*, 42 (3), 1–14.

Tanner, T. and Horn-Phathanothai, L., 2014. *Climate Change and Development*. Abingdon, UK: Routldege.

The Economist, 1993a. Buying Diversity. *The Economist*, 2 October 1993, p. 18.

The Economist, 1993b. Greened. *The Economist*, 4 December 1993, p. 117.

Thelen, K., 1999. Historical Institutionalism in Comparative Politics. *Annual Review of Political Science*, 2, 369–404.

Thelen, K., 2003. How Institutions Evolve: Insights from Comparative-Historical Analysis. *In*: Mahoney, J. and Rueschemeyer, D., eds. *Comparative Historical Analysis in the Social Sciences*. Cambridge, UK: Cambridge University Press, 208–240.

Thelen, K., 2004. *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan*. Cambridge, UK & New York, NY, USA: Cambridge University Press.

Thelen, K. and Steinmo, S., 1992. Historical institutionalism in comparative politics. *In*: Steinmo, S., Thelen, K., and Longstreth, F., eds. *Structuring Politics: Historical Instiutionalism in Comparative Analysis*. Cambridge, UK: Cambridge University Press, 1–32.

Therien, J.-P. and Lloyd, C., 2000. Development assistance on the brink. *Third World Quarterly*, 21 (1), 21–38.

Tirpak, D., Ballesteros, A., Stasio, K., and Mcgray, H., 2010. *Guidelines for Reporting Information on Public Climate Finance* [online]. WRI Issue Brief. Washington, D.C., USA: World Resources Institute. Available from: https://www.wri.org/publication/guidelines-reporting-information-public-climate-finance [Accessed 8 Oct 2018].

Tol, R. S., 2009. The Economic Effects of Climate Change. *The Journal of Economic Perspectives*, 23 (2), 29–51.

Tuffa, A., Mekonnen, A., Gebreegziabher, Z., and Seyoum, A., 2012. *Climate Conventions and Africa/Ethiopia* [online]. EDRI Research Report 15. Addis Ababa, ET: Ethiopian Development Research Institute. Available from: https://efdinitiative.org/publications/climate-conventions-and-africaethiopia [Accessed 4 Nov 2016].

UN, 1989. *UN General Assembly Resolution 44/228*. New York, NY, USA: United Nations.

UNCED, 1992. *Agenda 21* [online]. United Nations Conference on Environment & Development, Rio de Janeiro, Brazil, 2 to 14 June 1992. Available from: https://sustainabledevelopment.un.org/milestones/unced/agenda21 [Accessed 22 Nov 2016].

Underdal, A. and Wei, T., 2015. Distributive fairness: A mutual recognition approach. *Environmental Science and Policy*, 51, 35–44.

UNEP, 2015. *The Adaptation Finance Gap Update: With Insights from the INDCs* [online]. Nairobi, KE: United National Environment Programme. Available from: http://web.unep.org/adaptationgapreport/2015 [Accessed 24 Apr 2017].

UNEP, 2016. *The Adaptation Finance Gap Report* [online]. Nairobi, KE: United National Environment Programme. Available from: http://www.unepdtu.org/-/media/Sites/Uneprisoe/News-Item-(pdfs)/UNEP-GAP-report-2016_web-6_6_2016.ashx?la=da&hash=10B5992B026DC85EBFF20B79E786D97C3DCCE516 [Accessed 8 Apr 2019].

UNFCCC, 2007. *Investment and Financial Flows to Address Climate Change* [online]. Bonn, DE: United Nations Framework Convention on Climate Change. Available from: http://unfccc.int/resource/docs/publications/financial_flows.pdf [Accessed 17 Apr 2004].

UNFCCC, 2016. *The Special Climate Change Fund (SCCF)* [online]. United Nations Framework Convention on Climate Change. Available from: http://unfccc.int/cooperation_and_support/financial_mechanism/special_climate_change_fund/items/3657.php [Accessed 21 Sep 2016].

UNFCCC Standing Committee on Finance, 2014. *2014 Biennial Assessment and Overview of Climate Finance Flows Report* [online]. Bonn, DE: United Nations Framework Convention on Climate Change. Available from: https://unfccc.int/topics/climate-finance/workstreams/transparency-of-support-ex-post/biennial-assessment-and-overview-of-climate-finance-flows/the-second-biennial-assessment-and-overview-of-climate-finance-flows-2014 [Accessed 22 Sep 2018].

UNFCCC Standing Committee on Finance, 2016. *2016 Biennial Assessment and Overview of Climate Finance Flows Report* [online]. Bonn, DE: United Nations Framework Convention on Climate Change. Available from: https://unfccc.int/topics/climate-finance/workstreams/transparency-of-support-ex-post/biennial-assessment-and-overview-of-climate-finance-flows/the-second-biennial-assessment-and-overview-of-climate-finance-flows-2016 [Accessed 22 Sep 2018].

Vanderheiden, S., 2008. *Atmospheric Justice: A Political Theory of Climate Change*. Oxford, UK: Oxford University Press.

Vanderheiden, S., 2015. Justice and Climate Finance: Differentiating Responsibility in the Green Climate Fund. *The International Spectator: Italian Journal of International Affairs*, 50 (1), 31–45.

VanDeveer, S. D. and Dabelko, G. D., 2001. It's Capacity, Stupid: International Assistance and National Implementation. *Global Environmental Politics*, 1 (2), 18–29.

Vatn, A., 2015. *Environmental Governance: Institutions, Policies and Actions*. Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing.

Verbong, G. P. J. and Geels, F. W., 2010. Exploring sustainability transitions in the electricity sector with socio-technical pathways. *Technological Forecasting and Social Change*, 77 (8), 1214–1221.

Verheyen, R., 2002. Adaptation to the Impacts of Anthropogenic Climate Change - The International Legal Framework. *Review of European Community and International Environmental Law (RECIEL)*, 11 (2), 129–143.

Victor, D. G., 1991. How to slow global Warming. *Nature*, 349, 451–456.

Victor, D. G., 1998. The Operation and Effectiveness of the Montreal Protocol's Non-Compliance Procedure. *In*: Victor, D. G., Raustiala, V., and Skolnikoff, E. B., eds. *The Implementation and Effectiveness of International Environmental Commitments*. Cambridge, MA, USA: MIT Press, 137–176.

Victor, D. G., 2006. Toward Effective International Cooperation on Climate Change: Numbers, Interests and Institutions. *Global Environmental Politics*, 6 (3), 90–104.

Vidal, J., 2011. Western nations 'used bullying tactics' at climate talks. *The Guardian* [online], 26 November 2011. Available from: https://www.theguardian.com/environment/2011/nov/26/climate-change-talks-durban [Accessed 21 Mar 2018].

Vihma, A., Mulugetta, Y., and Karlsson-Vinkhuyzen, S., 2011. Negotiating solidarity? the G77 through the prism of climate change negotiations. *Global Change, Peace and Security*, 23 (3), 315–334.

Vogel, J., 2014. The problem with consensus in the U.N. Framework Convention on Climate Change. *Philosophy and Public Policy Quarterly*.

Vogler, J., 2016. *Climate Change in World Politics*. Basingstoke, UK & New York, NY, USA: Palgrave Macmillan.

Wapner, P., 2008. The Importance of Critical Environmental Studies in the New Environmentalism. *Global Enviornmental Politics*, 8 (1), 6–13.

Wara, M., 2007. Is the global carbon market working? *Nature*, 445, 595–596.

Weikmans, R. and Roberts, J. T., 2019. The international climate finance accounting muddle: is there hope on the horizon? *Climate and Development*, 11 (2), 97–111.

Weikmans, R. and Roberts, T., 2016. *Fit for Purpose: Negotiating the New Climate Finance Accounting Systems* [online]. Policy Brief No. 3. London, UK: Climate Strategies. Available from: http://climatestrategies.org/publication/negotiating-the-new-climate-finance-accounting-systems/ [Accessed 28 Oct 2016].

Weisslitz, M., 2002. Rethinking the Equitable Principle of Common but Differentiated Responsibility: Differential Versus Absolute Norms of Compliance and Contribution in the Global Climate Change Context. *Colarado Journal of International Environmental Law and Policy*, 13 (2), 473–509.

Wendt, A., 1992. Anarchy is what states make of it: the social construction of power politics. *International Organization*, 46 (2), 391–425.

Werksman, J., 1996. Consolidating Governance of the Global Commons: Insights from the Global Environmental Facility. *Yearbook of International Environmental Law*, 6 (1), 27–63.

White, R., 2013. Resource Extraction Leaves Something Behind: Environmental Justice and Mining. *International Journal for Crime and Justice*, 2 (1), 50–64.

Widerberg, O. and Pattberg, P., 2017. Accountability Challenges in the Transnational Regime Complex for Climate Change. *Review of Policy Research*, 34 (1), 68–87.

Williams, M., 2005. The Third World and Global Environmental Negotiations: Interests, Institutions and Ideas. *Global Enviornmental Politics*, 5 (3), 48–69.

Winkler, H. and Beaumont, J., 2010. Fair and effective multilateralism in the post-copenhagen climate negotiations. *Climate Policy*, 10 (6), 638–654.

Wirth, D. A. and Lashof, D. A., 1990. Beyond Vienna and Montreal: Multilateral Agreements on Greenhouse Gases. *Ambio*, 19 (6/7), 305–310.

Woerdman, E., 2004. Path-Dependent Climate Policy: The History and Future of Emissions Trading in Europe. *European Environment*, 14, 261–275.

World Bank, 2010. *Economics of Adaptation to Climate Change: Synthesis Report* [online]. Washington, D.C., USA: World Bank. Available from: http://documents.worldbank.org/curated/en/646291468171244256/Economics-of-adaptation-to-climate-change-Synthesis-report [Accessed 22 Sep 2018].

WRI, 2010. *Additionality of Climate Finance* [online]. Washington, D.C., USA: World Resources Institute. Available from: https://www.unngls.org/IMG/pdf/WRI_-_Additionality_of_Climate_Finance.pdf [Accessed 8 Oct 2018].

Yamin, F. and Depledge, J., 2004. *The International Climate Change Regime: A Guide to Rules, Institutions and Procedures*. Cambridge, UK: Cambridge University Press.

Yamineva, Y. and Kulovesi, K., 2013. The New Framework for Climate Finance Under the United Nations Framework Convention on Climate Change: A Breakthrough or an Empty Promise? *In*: Hollo, E. J., Kulovesi, K., and Mehling, M., eds. *Climate Change and the Law*. Dordrecht NL: Springer Netherlands, 191–223.

Young, O. R., 1982. *Resource regimes: Natural resources and social institutions*. Berkeley, CA, USA: University of California Press.

Young, O. R., 1989. The Politics of International Regime Formation: Managing Natural Resources and the Environment. *International Organization*, 43 (3), 349–375.

Young, O. R., 1990. Global Environmental Change and International Governance. *Millennium: Journal of International Studies*, 19 (3), 337–346.

Young, O. R., 1994. *International Governance: Protecting the Environment in a Stateless Society*. Ithaca, NY, USA & London, UK: Cornell University Press.

Young, O. R., 2002a. *The Institutional Dimensions of Environmental Change: Fit, Interplay, and Scale*. Cambridge, MA, USA: MIT Press.

Young, Z., 2002b. *A New Green Order?: The World Bank and the Politics of the Global Environmental Facility*. London, UK & Sterling, VA, USA: Pluto Press.

Young, Z. and Boehmer-Christiansen, S., 1997. The global environment facility: An institutional innovation in need of guidance? *Environmental Politics*, 6 (1), 193–202.

Zaelke, D. and Cameron, J., 1990. Global Warming and Climate Change - An Overview of the International Legal Process. *American University Journal International Law Review*, 5 (2), 249–290.

Zhang, Y. and Shi, H.-L., 2014. From burden-sharing to opportunity-sharing: unlocking the climate negotiations. *Climate Policy*, 14 (1), 63–81.

Zürn, M., 1998. The Rise of International Environmental Politics: A Review of Current Research. *World Politics*, 50 (4), 617–649.

Zürn, M., 2016. Historical Institutionalism and International Relations — Strange Bedfellows? *In*: Rixen, T., Viola, L. A., and Zürn, M., eds. *Historical Institutionalism and International Relations: Explaining Institutional Development in World Politics*. Oxford, UK: Oxford University Press, 199–228.