



Edward Cameron

## Building Climate Justice:

An analysis of how the nexus between climate change and human rights shapes public policy agendas and alternatives



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## Dedication

*“If you look at the science that describes what is happening on earth today and aren’t pessimistic, you don’t have the correct data. If you meet the people in the environmental movement and aren’t optimistic, you haven’t got a heart. What I see are ordinary and some not-so-ordinary individuals willing to confront despair, power, and incalculable odds in an attempt to restore some semblance of grace, justice, and beauty to this world.”*

*(Paul Hawken, “Blessed Unrest.”).*

In conducting this research I have come across countless individuals in government, business, civil society, and academia working to ensure that all people can lead a prosperous and dignified life within the boundaries of the Earth’s natural resources. This work is dedicated to them.

## Abstract

*This thesis provides an analysis of how the nexus between climate change and human rights shapes public policy agendas and alternatives. It draws upon seminal work conducted by John Kingdon, whose landmark publication “Agendas, alternatives, and public policy” described how separate streams of problems, solutions, and politics converge to move an issue onto the public policy agenda toward potential government action. Building on Kingdon’s framework, this research explores how human rights contribute to surfacing the problem of climate change; developing alternative approaches to tackling climate change; and improving the political environment necessary for addressing climate change with sufficient ambition. The study reveals that climate change undermines the realization of human rights and that human rights can be effective tools in building climate resilience. This analysis was developed using a mixed methods approach and drawing upon substantial literature review, the researcher’s own participation in international climate policy design; elite interviews with thought leaders dealing with climate change and human rights; and regular inputs from focus groups comprised of practitioners drawn from the fields of climate change, development and human rights. This is a journal based thesis with a total of six articles submitted for evaluation, published in peer-reviewed publications, over a five year period.*

*Denna avhandling analyserar hur klimatfrågan och mänskliga rättigheter i samverkan formar den politiska agendan och det politiskt möjliga. Den bygger på banbrytande forskning av John Kingdon, vars publikation “Agendas, alternatives, and public policy” beskriver hur en fråga blir politiskt viktig och lyfts upp på den politiska agendan. Med utgångspunkt i Kingdons ramverk, utforskar avhandlingen hur mänskliga rättigheter bidrar till att blottlägga klimatfrågan som problem; utveckla alternativa metoder för att angripa och hantera klimatfrågan; samt skapa ett politiskt klimat nödvändigt för att på ett ambitiöst sätt kunna angripa klimatfrågan. Studien visar att klimatförändringar undergräver mänskliga rättigheterna men att arbete med mänskliga rättigheter kan vara ett effektivt verktyg för att stå emot och hantera effekterna av klimatförändringar. Analysen har genomförts med hjälp av en rad olika metoder vilka inkluderar litteraturstudier, författarens egna observationer under klimatförhandlingar; intervjuer med ledande tänkare inom klimatfrågan och mänskliga rättigheter; samt data insamlad genom fokusgrupper bestående av yrkesverksamma inom klimat, utveckling och mänskliga rättigheter. Avhandlingen är baserad på totalt sex artiklar som publicerats i fackgranskade tidskrifter under en femårsperiod.*

## Acknowledgements

This research has been a long journey travelled over many years, in numerous countries, and pursued in parallel with a variety of professional roles. I want to take this opportunity to offer my sincere and lasting thanks to the people who have made this journey both possible and pleasurable.

First and foremost I wish to thank my advisor, Dr Marko Joas who serves as Professor of Public Administration at Åbo Akademi University. While it is true to say I would not have started this research without him it is more important to acknowledge I would not have finished this work under any other supervisor. Dr Joas has provided me with a platform to learn, write, teach, and grow as an academic. He instinctively knew when I needed advice and when I needed a deadline. He trusted my expertise on climate change and human rights and supplemented it with his deep knowledge of governance and research methods. Whenever I struggled and felt lost he restored direction and confidence. I will be eternally grateful for his unrivaled people management and problem solving skills.

I would also like to thank my examiners Dr Maarten van Aalst and Dr Pablo Suarez. Both are tireless advocates for populations vulnerable to the damaging impacts of climate change and peerless experts on climate resilience. In their professional work they are models for developing actionable research founded on rigorous evidence, and shaped for maximum impact. I owe them a special debt for examining my work in the midst of the preparations for the UN climate conference in Paris, arguably the most intense period for climate professionals in a generation. Their ability to pursue academic careers while shaping public policy is an inspiration to me and an example I hope to emulate over the coming years.

This research was written and released incrementally through published peer reviewed articles. I would therefore like to offer acknowledge a number of colleagues who co-authored some of those articles. First, I would like to thank Mark Limon the Executive Director of the Universal Rights Group and my co-author on an article submitted to the Review of European Community & International Environmental Law. When Mark and I worked together for the government of the Maldives we did not realize that a random conversation one morning at the Foreign Ministry about the links between human rights and climate change would have such an influence on the next decade of our lives, nor have such an impact on the climate and rights communities. I would also like to thank Dr Tara Shine, and Wendi Bevins my partners in designing the “Climate Justice Dialogue” and my co-authors for the paper published by the World Resources Institute and the Mary Robinson Foundation Climate Justice. The various articles comprising this research were subjected to rigorous peer review. Some of the reviewers are known to me while some of the reviews were blind. I would like to thank all of them for greatly improving my work. I would further like to thank my colleague Martin Benderson for translating my abstract into Swedish.

Conducting this research has provided me with the opportunity to be part of the community of skilled and dedicated academics at the Departments of Public Administration and Political Sciences at Åbo Akademi University in Finland. I would like to thank them for their unwavering hospitality on my many visits to Turku and for their help in attracting reluctant students to my long courses on European Union integration. In particular Marina Hamberg and Outi Tuohi have been tireless in their provision of guidance and support.

Professional guidance is critical to the success of any research endeavor but in order to be effective it needs to be complemented by a deep well of personal support from friends and family. It is this support that allows researchers to lock themselves away in rooms on family holidays without getting into trouble; that enables us to spend weekends on writing instead of relaxation; and that encourages us to press on to the finish when thoughts of giving up enter our minds. To my family and friends I want to thank you for encouraging me, tolerating me, and believing in me across all these years.

This analysis addresses the most global of issues and it is therefore fitting that this research has been conducted at various points around the world with articles written in Tallinn, Brussels, Washington, Vancouver, New York, Zurich, and Vermont. In each of these locations friends and family have offered me their homes to conduct interviews, organize my thoughts and commit ideas to paper. I would like to offer specific thanks to Peter Lee, Chantal den Broeder, David Cameron; Robert and Maye Bachofen; and Kathrin Bachofen-Fellinger for their generous hospitality and patience throughout this journey.

Finally, but most importantly I would like to offer thanks to my wife Carina Bachofen. I am fortunate to have a spouse who is both a climate expert in her own right and a constant source of personal strength. Carina has been the first and most trusted peer reviewer of my work and as a result the reader owes her a debt for making my dense writing more accessible. She has served as my local supervisor providing practical advice on writing and time management and offering unlimited emotional support. More than anyone Carina understood that this research was both the pursuit of a professional qualification and a very personal journey. She sacrificed a great deal to help me finish this work. A doctoral degree is a tremendous reward. Her pride in my work is the greatest reward of all.

## Preface

This research began in 2006. I sought to provide analytical rigor to what was at the time an emerging and embryonic discourse on the link between climate change and human rights. A series of vulnerable and marginalized communities across the globe had begun to lose patience with international negotiations designed to tackle climate change. Two communities in particular - the Inuit of the United States and Canada and the inhabitants of small-island developing states –were witnessing harm to biodiversity and ecosystems services and were losing their homes and livelihoods to climate-induced risks. Over the longer-term these communities understood climate change as an existential threat to their very way of life. And yet greenhouse gas emissions continued to rise, global mean temperatures continued to climb, and the climate challenge seemed absent from the higher echelons of political and policy agendas.

As a policy practitioner I recalled a quote attributed to James MacNeill, the former Secretary of the World Commission on Environment and Development, who had once claimed “perhaps the greatest weakness of sustainable development lies in the fact that we have not yet begun to invent a politics to go with the concept”. I realized through my own experience that a new politics of climate change needed to emerge in order to catalyze action and ambition commensurate with the challenge outlined in climate science. Along with other colleagues in the climate community I believed that providing a human dimension to what had previously been communicated as an ecological crisis would enable climate change to resonate with more people, create new domestic constituencies of demand, and so elevate climate as an issue on the decision agenda. I further believed that using human rights as both a lens and a tool would provide new means to diagnose the climate challenge and new policy alternatives for building resilience. And I believed that the practice of human rights, particularly related to the procedural rights of access to information, decision making and justice, would enhance climate governance and thus improve the outcomes of the policy process in ways more aligned with the need of vulnerable communities.

This research represents my efforts over the subsequent nine years as both academic and policy practitioner to test those assumptions. During this investigation I have been able to translate the analysis and insights into actionable strategies to aid vulnerable communities. While working for the government of the Maldives I was part of the first state-led initiative to formally recognize the link between climate change and human rights. This resulted in two United Nations Human Rights Council Resolutions, the preparation of a politically-sanctioned report by the UN High Commissioner for Human Rights, the adoption of human rights language in an international climate agreement for the first time, and ultimately to the creation of a new independent expert on human rights and environment within the UN human rights system. While working at the World Bank I was able to design and implement the first training course on the social dimensions of climate change at a multi-lateral development agency using human rights as a lens to diagnose vulnerability and shape interventions to build resilience. At the World Resources Institute while serving as Director of International Climate Policy I was able to create a global dialogue designed with reframing equity and ambition in the United Nations climate negotiations using climate justice as a framing. None of this work would have been possible without the evidence base created through this research.



As this research draws to a close I am conscious of approaching the mid-point in my career, having spent eighteen years working on climate change, nine of those on the nexus between climate change and human rights. As a result my thoughts increasingly turn to how I might use this body of work as a foundation for the next phase of my professional development.

My first aspiration is to take the nexus between climate change and human rights into the private sector. I am increasingly convinced that diplomatic agreements between governments will be insufficient to drive the transition to a climate-compatible future without the leadership and innovation of the private sector. In my current role as Director of Research and Partnership Development at BSR – a global non-profit that works with more than 250 multinational companies to build a just and sustainable world – I am fortunate to have access to multinational companies across ten industry clusters vital to such a transition. Over the coming years I hope to use the lessons I have learned through this research to build programs that catalyze private sector on this issue by addressing climate and rights related matters including on gender empowerment, access issues, community relations, and business leadership on social development.

My second aspiration is to ensure that the next generation of leaders are equipped to make a meaningful contribution to the dual challenges of climate change and securing human rights. I have been teaching courses on sustainable development and European Union policy for 12 years and have always found the opportunity to educate the pioneers and leaders of tomorrow to be the most rewarding aspect of my academic career. I hope to use this research as an opportunity to build a dedicated curriculum on climate change and human rights for postgraduate students working across a range of disciplines including public administration, political science, economics, international development and business administration, with the hope of preparing the next generation of policy makers and business leaders to tackle the global challenge of climate change with greater success. Ideally I would like to develop a curriculum that could be appealing for students in North America, Europe and one or more emerging economies particularly China and India.

TS Eliot wrote: "for last year's words belong to last year's language. And next year's words await another voice. And to make an end is to make a beginning." I have spent the past nine years working to build a new language to explain the challenge of global climate change and to provide populations on the frontline of climate impacts with the means to tell their stories of vulnerability and resilience. I now hope to play my part in cultivating the voices of the next generation of climate leaders and passing on what I have learned.

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## List of Acronyms and Abbreviations

TBD - to be completed after Marko's review.

AGW	Anthropogenic global warming
AOSIS	Alliance of Small Island States
AR4	Fourth Assessment Report
BC	Black carbon
BSR	Business for Social Responsibility
CBDRRRC	Common but differentiated responsibilities and respective capabilities
CH <sub>4</sub>	Methane
CIEL	Center for International Environmental Law
CO <sub>2</sub> e	Carbon dioxide equivalent
COP	Conference of the Parties
EPA	Environmental Protection Agency
G20	Group of Twenty
GHGs	Greenhouse gas emissions
GLOBE	Global Legislators Organisation
Gt	Gigatons
GtCO <sub>2</sub> e	Gigatons of carbon dioxide equivalent
HFCs	Hydrofluorocarbons
ICHRP	International Council for Human Rights Policy
IFPRI	International Food Policy Research Institute
INC/FCCC	Intergovernmental Negotiating Committee for a Framework Convention on Climate Change
IPCC	Intergovernmental Panel on Climate Change
MDBs	Multilateral Development Banks

MRFCJ	Mary Robinson Foundation Climate Justice
MRV	Monitoring, reporting and verification
MtCO <sub>2</sub> eq	Metric Tons of Carbon Dioxide Equivalent
NGO	Non-governmental organization
O <sub>3</sub>	Tropospheric ozone
OHCHR	Office for the High Commissioner of Human Rights
RECIEL	Review of European Community and International Environmental Law
SDCC	Social Dimensions of Climate Change
SIDS	Small Island Developing States
SLCP	So-called short-lived climate pollutants
SPs	Special Procedures
UN	United Nations
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
UNHRC	United Nations Human Rights Council
UNOHCHR	United Nations Office of the High Commission on Human Rights
UPR	Universal Periodic Review
URG	Universal Rights Group
WEF	World Economic Forum
WMO	World Meteorological Organization
WNW	West-Northwest Journal of Environmental Law and Policy
WRI	World Resources Institute

## Executive Summary

This research provides an analysis of how the nexus between climate change and human rights shapes public policy agendas and alternatives. It draws upon seminal work conducted by John Kingdon, whose landmark publication “Agendas, alternatives, and public policy” described how separate streams of problems, solutions, and politics converge to move an issue onto the public policy agenda toward potential government action. Building on Kingdon’s framework, this research explores how human rights contribute to surfacing the problem of climate change; developing alternative approaches to tackling climate change; and improving the political environment necessary for addressing climate change with sufficient ambition. The study reveals that climate change undermines the realization of human rights and that human rights can be effective tools in building climate resilience.

The empirical and analytical work produced during this research were created between 2009 and 2014 comprising a total of six peer reviewed articles published by law journals, research institutes, and development agencies. These articles explore numerous ways in which human rights can contribute to agenda, alternatives and policies conducive to climate compatible development; and target distinct but related constituencies charged with building a low carbon future. As a result some of the articles are aimed at development practitioners working within multilateral development banks (MDBs); whereas others are directed towards diplomats and negotiators operating within the United Nations Framework Convention on Climate Change (UNFCCC).

There are seven substantive parts to this capstone. These are:

- Part I. *Expectations and Thesis*: presents the thesis which guided this research and outlines the initial expectations and assumptions that were explored in the empirical and analytical work.
- Part II. *The Policy Setting*: provides an analysis of the challenge of global climate change and the international policy environment that has been developed in response. This includes a detailed discussion on climate science and the socio-ecological impacts of climate change and an examination of the purpose and setting for international climate policy.
- Part III. *The Approach Setting* presents the theoretical frameworks that have informed this body of research. The core to this work is a theory of change addressing ways to elevate issues on the political decision agenda and to shape policy alternatives.
- Part IV. *Research Design and Methodology* provides a summary of design philosophy, methods and sources.
- Part V. *Analytical and Empirical Work* provides a synopsis and overview of selection criteria for each article presented for evaluation.
- Part VI. *Conclusions* presents key findings from this research.
- Part VII. *Future Research* outlines plans for follow-up research building on the conclusions of this investigation.

## ***Expectations and Thesis***

This research is focused on the issue of climate justice. The central thesis is that drawing upon both the intrinsic and instrumental value of human rights can serve to elevate climate change to the top of the decision-making agenda; aid the development of policy alternatives for reducing greenhouse gas emissions and strengthening adaptive capacity; and facilitate the opening of a political window of opportunity for action and ambition on climate change.

The basic theory is that agenda setting and alternative shaping is achieved in numerous ways including *inter alia* improved analysis of climate change drivers, impacts and thresholds; enhanced climate governance through strengthened access to decision making, information and justice for frontline communities; authoritative advocacy driven by a powerful human-centered narrative; broadening the terms of the climate change dialogue by mobilizing new constituencies of demand outside traditional environmental non-governmental organizations (NGOs); and instrumental value for climate and development practitioners through the provision of new approaches and mechanisms to deal with longstanding climate policy disputes.

The theory of change is informed by pioneering analysis of public policy making by John W Kingdon and the theory of justice underpinning the work is heavily influenced by the philosophy of Amartya Sen. Both the theory of change and the theory of justice have combined to shape a “theory of climate justice”, evident in the empirical work, and presented in this capstone. Discussing the interface between environmental and social issues in his Papal Encyclical in 2015, Pope Francis wrote strategies for a solution (to global challenges) “demand an integrated approach to combating poverty, restoring dignity to the excluded, and at the same time protecting nature”.<sup>1</sup> This integrated approach is at the heart of this thesis.

## ***The Policy Setting***

Part II of the capstone presents an assessment of climate science and of the international policy architecture that has been created in response to the climate challenge. Rather than providing an historical chronology of policies and agreements, Part I focuses on the key cleavages that have emerged, persist, and consequently undermine progress towards constructing an effective enabling environment for climate compatible development. The analysis covers the two decades between the entry into force of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and the current international negotiations conducted under the “Durban Platform for Enhanced Action”, adopted in South Africa in December 2011.

Climate change is caused by Greenhouse Gases (GHGs) produced primarily by energy production and use; and land-use change and agriculture. These are changing the chemical composition of the atmosphere and the oceans. GHGs include Carbon Dioxide (CO<sub>2</sub>) and short-lived pollutants such as Methane (CH<sub>4</sub>), Black Carbon (BC), Tropospheric Ozone (O<sub>3</sub>) and Hydrofluoric Carbons (HFCs). CO<sub>2</sub> constitutes almost 60%

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<sup>1</sup> Pope Francis (2015), p. 104



of all GHGs in the atmosphere. According to the Intergovernmental Panel on Climate Change (IPCC) – the world’s leading authority on climate science - climate change is real, accelerating and caused by human activity. Moreover, the Panel concludes that concentrations of GHGs in the atmosphere are now at levels unprecedented in at least the last 800,000 years. This has led to a warming atmosphere and a warming path to global mean temperature rises up to 4.5°C by the end of the century. The IPCC has identified 2°C above pre-industrial levels as the threshold beyond which dangerous climate change begins to take hold. In addition, the oceans are warming and becoming more acidic; the extent and volume of snow and ice are diminishing; sea levels are rising; and an increase in intensity and frequency of meteorological, hydrological and climatological events has been documented. This is causing widespread destruction to biodiversity and ecosystems services and enhanced risks to social systems including to livelihoods, homes, human rights, health, and food security.

For more than two decades the United Nations Framework Convention on Climate Change (UNFCCC) has been the preeminent global policy venue with the mandate to address the climate challenge. Through a succession of Conventions, Protocols and intergovernmental agreements, the UNFCCC has sought to mobilize collective action on greenhouse gas emissions reductions, enhancement of adaptive capacity particularly in vulnerable countries, and the provision of both finance and technology to transition to a climate-compatible future.

As the empirical work reveals the UNFCCC has too often failed to rise to the challenge of global climate change. Governments have been unable to offer adequate policies sufficient to reduce greenhouse gas emissions in line with science. Too much political capital has been wasted disputing responsibilities, capabilities and replaying long-standing north-south divides. Notably, the core principle of equity and Common But Differentiated Responsibilities and Respective Capabilities (CBDRRC) has proven to be an intractable cleavage within the international climate negotiations. Domestic constituencies of demand have been unsuccessful at turning climate change into a persistent front-of-mind issue and so the topic has rarely been high on the political decision agenda. Policy alternatives with broad political support have been absent both internationally and within key economies. And those policies that have been implemented have often failed to deliver. As a result an “emissions gap” remains between the greenhouse gas emissions pledges currently tabled by governments and the reductions needed to hold global temperatures below 2°C above pre-industrial levels.

This has led to a sense of frustration amongst vulnerable communities which in turn has led them to explore complementary approaches to driving climate ambition including through the development of a nexus between climate change and human rights.

### ***The Approach Setting***

Part III of the capstone presents the theoretical frameworks that have informed this body of research. The theory of public policy agenda setting and shaping of policy alternatives pioneered by John W Kingdon has been the cornerstone of the theory of change. As this research deals with the interface between climate change and human rights there has also been a need to adopt a theory of justice, in this case informed

principally by the work of Amartya Sen. These theories are brought together into a consolidated and composite theory of climate justice.

Initially, this research concentrated on the ways in which ideas and institutions interface, and the manner in which a human rights based approach to climate change might alter the institutional setting for climate policy and build the capacity of the actors within this regime by equipping them with the tools and narratives of a rights-based approach to climate.

As the work evolved the core theory of change became heavily influenced by the scholarly work of John W Kingdon, who argues that an issue is most likely to achieve public agenda status when public problems, policy alternatives, and political opportunities intersect. He contends that public policymaking can be considered to be a set of processes, including at least (1) the setting of the agenda, (2) the specification of alternatives from which a choice is to be made, (3) an authoritative choice among those specified alternatives, and (4) the implementation of the decision. These insights on agenda setting and the shaping of policy alternatives have been applied throughout this research and can be found in the empirical work.

The theories of Amartya Sen have provided the conceptual grounding for the theory of justice applied in this research. Sen illustrates the difference between policy alternatives that inevitably create losers as well as winners, and what he describes as manifest injustices. Essentially he provides a framework for adjudicating between process and outcomes that could be viewed as unfair and manifest injustices that are of a far higher order of magnitude. Sen's theory of justice also allows for alignment with Kingdon's theory of change because he is adamant that justice must be concerned with the shaping of policy alternatives and not just a theoretical exercise in imagining a perfect world.

In his landmark work "Development as Freedom" Amartya Sen states that freedom is the primary end and the principal means of development. This research began with a similar assumption, namely that the strengthened human rights should be the primary end of climate change interventions and that strengthening human rights, particularly procedural rights, was the principal means to get there. The research has largely validated this assumption as it has revealed the procedural rights are particularly important for vulnerable populations both in terms of providing them with access to decision-making, which is in turn critical for shaping policy outcomes that address their unique vulnerability; and for enhancing access to the vital assets and resources that enhance resilience in the face of climate impacts. However, the research also concludes that a broad menu of policy options above and beyond human rights continue to be needed to catalyze the transition to a climate-compatible future.

### ***Research Design and Methodology***

This is a journal based thesis with a total of six articles submitted for evaluation, published in peer-reviewed publications, over a five year period. The articles submitted for evaluation comprise 143 pages of work and contain 545 citations. Five distinct focus groups convened between 2012 and 2014 featured 151 participants, providing input to the research based on semi-structured interviews. And over the course of the past eight years the author has organized, participated in, and spoken at countless workshops and conferences on five continents.

This analysis was developed using a mixed methods. The bulk of the analysis has been qualitative in nature, derived from both primary and secondary sources. Three basic techniques of primary data collection were used, namely observation, participation and interrogation (interviews and focus groups). While a substantial volume of written sources spanning several disciplines was used as secondary sources.

### **Analytical and Empirical Work**

The six articles presented in Part V of the capstone were prepared over a six-year period, and together address different but complementary ways in which human rights can aid agenda setting, the generation of policy alternatives, and drive greater ambition in public policy to address the socio-ecological implications of climate change. Each article has been published in reputable and widely disseminated publication, and each has been subjected to extensive peer review. The articles are:

- *Article 1:* Cameron, E (2009) *Small Island Developing States at the Forefront of Global Climate Change*. In Starke, Linda ed. (2009) **2009 State of the World: Into A Warming World**. Worldwatch Institute. Washington, DC.
- *Article 2:* Cameron, E (2009b) *The Human Dimension of Global Climate Change*. In **West Northwest Journal of Environmental Law and Policy**. Vol. 15, No. 1, pp1-15. UC Hastings, San Francisco.
- *Article 3:* Cameron, E (2010) *Human Rights and Climate Change: Moving from an intrinsic to an instrumental approach*. In **Georgia Journal of International and Comparative Law**, Volume 38, Number 3, Spring 2010, pp673-716. University of Georgia Law School. Athens, Georgia.
- *Article 4:* Cameron, E (2011) *Development, climate change and human rights: From the margins to the mainstream?* **Social Development Working Papers**. Paper No. 123/February 2011. The World Bank. Washington, DC.
- *Article 5:* Cameron, E and Limon, M (2012) *Restoring the Climate by Realizing Rights: The Role of the International Human Rights System*. In **Review of European Community & International Environmental Law** 21 (3) 2012, pp2014-219. Blackwell Publishing Ltd. Oxford.
- *Article 6:* Cameron, E. Shine, T. and Bevins, W. (2013) *Climate Justice: Equity and Justice Informing a New Climate Agreement*. **World Resources Institute Working Paper Series**. World Resources Institute, Washington DC and Mary Robinson Foundation Climate Justice, Dublin.

### **Conclusions**

This research revealed that climate change undermines a range of internationally recognized human rights as climate hazards including meteorological events (storms and extreme weather), hydrological events (floods, landslides, etc...), and climatological events (extreme temperatures, droughts, etc...) combine with social, political and economic inequalities to negatively impact the lives, livelihoods, homes, security and human rights of vulnerable and marginalized communities across the globe.

The research further concluded that vulnerable and marginalized communities are disproportionately impacted because their livelihoods are largely dependent on biodiversity and ecosystems services such as agriculture, fishing and forestry; and they often lack the necessary physical financial, technological, social and political resources which can enable them to adapt to climate change.

To address these issues this research concludes that vulnerable populations can be served by bringing together the theories of change and justice outlined in this thesis into a unified theory of climate justice, which essentially operationalizes the nexus between climate change and human rights, and over time the term “climate justice” has become the shorthand used to describe this nexus.

Climate justice – an approach to climate and development policies drawing on the nexus between human rights and climate change – can help shape new tools for these vulnerable groups to shape policy alternatives conducive to building their own resilience. For example, providing vulnerable groups with access to information, decision-making, and justice; tackling issues such as discrimination and inequality; promoting economic inclusion; and sharing financial, technological, physical, and knowledge assets can all minimize sensitivity and enhance adaptive capacity. The theory of climate justice that emerges has two reinforcing pillars that can build on each other to maximize impact overtime.

The first pillar concentrates on urgent and ambitious mitigation of greenhouse gas emissions consistent with holding global temperatures below 2°C above pre-industrial levels. Climate justice cannot be achieved in a world where vital socio-ecological thresholds are breached impacting the realization of a range of substantive rights and undermining the development aspirations of vulnerable and marginalized communities.

The second pillar focuses on enhancing adaptive capacity to respond to the climate impacts already locked into the system as a result of historical emissions and emissions trends Anticipated over the coming decades. Social development interventions and the strengthening of human rights can enable communities most vulnerable to climate-related events to manage the shocks, rebound, and continue on a progressive pathway to sustainable development.

Both pillars requires “voice, agency and empowerment” of communities most directly affected by climate change to provide them with access to information, decision making and justice. This in turn enables them to account for their experience in policy venues, advocate for their own interests, and ensure that policy alternatives are shaped in a way that enhances their resilience.

Climate justice can serve as a new and powerful narrative in support of urgent and ambitious climate action. A human-centered narrative on climate change, complementing the science and the historical focus on biodiversity and ecosystems, draws upon morals, ethics, and faith and therefore appeals to constituencies that have not previously been part of the environmental community providing the basis for a wider vocabulary of arguments on climate change; the foundations for stronger and deeper constituencies of demand for ambitious climate interventions, and consequently a platform for more authoritative advocacy.

While the bulk of the early scholarly work on human rights and climate change focused on legal remedies and approaches, the empirical work conducted under the auspices of this research was unable to validate the idea that a purely legal approach to the nexus between climate change and human rights is sufficient to drive climate ambition.

This research concludes that a climate justice approach can offer new and innovative ways to frame equity and the principle of “Common But Differentiated Responsibilities and Respective Capabilities” (CBDRRC) within the international climate negotiations, consequently opening new avenues to reconcile the twin need for climate ambition and development paths for vulnerable populations.

To achieve this vision of climate justice this research concludes that the instrumental benefits of the nexus between climate change and human rights ought to be deployed in order to generate urgency around the climate challenge; build a coalition in support of climate action; elevate climate on the political decision agenda; shape policy alternatives that advance climate stabilization and avoid negative socio-ecological impacts; and catalyze effective implementation of climate policy over time.

### ***Future Research***

This research has provided a basis for further investigation on the nexus between human rights and climate change. The author currently hopes to follow this work with the following series of analysis:

- First, an examination of how to create the enabling conditions to integrate climate action into the forthcoming Paris agreement scheduled for adoption under the auspices of the United Nations Framework Convention on Climate Change in Paris in December 2015.
- Second, an examination of the relationship between climate change and the UN Guiding Principles on Business and Human Rights in order to assess the ways in which the private sector can act to support climate justice.
- Third, an examination of the nexus between human rights and short-lived climate pollutants (SLCPs), which include black carbon (BC), methane (CH<sub>4</sub>), tropospheric ozone (O<sub>3</sub>), and hydrofluorocarbons (HFCs). These have a short atmospheric lifetime compared to CO<sub>2</sub> and have particular implications for human health.

## Part I: Expectations / Thesis

*Part I of the capstone presents the thesis which guided this research and outlines the initial expectations and assumptions that were explored in the empirical and analytical work. These aspects are addressed in the following sections:*

- *Introduction to the thesis*
- *Expectations and assumptions*

*A more detailed account of the policy setting is provided in Part II and a substantial account of the theoretical approach is provided in Part III.*

### I. Introduction to the thesis

This research is focused on the issue of climate justice. The central thesis is that drawing upon both the intrinsic and instrumental value of human rights can serve to elevate climate change to the top of the decision-making agenda; aid the development of policy alternatives for reducing greenhouse gas emissions and strengthening adaptive capacity; and facilitate the opening of a political window of opportunity for action and ambition on climate change.

The basic theory is that agenda setting and alternative shaping is achieved in numerous ways including *inter alia* improved analysis of climate change drivers, impacts and thresholds; enhanced climate governance through strengthened access to decision making, information and justice for frontline communities; authoritative advocacy driven by a powerful human-centered narrative; broadening the terms of the climate change dialogue by mobilizing new constituencies of demand outside traditional environmental non-governmental organizations (NGOs); and instrumental value for climate and development practitioners through the provision of new approaches and mechanisms to deal with longstanding climate policy disputes.

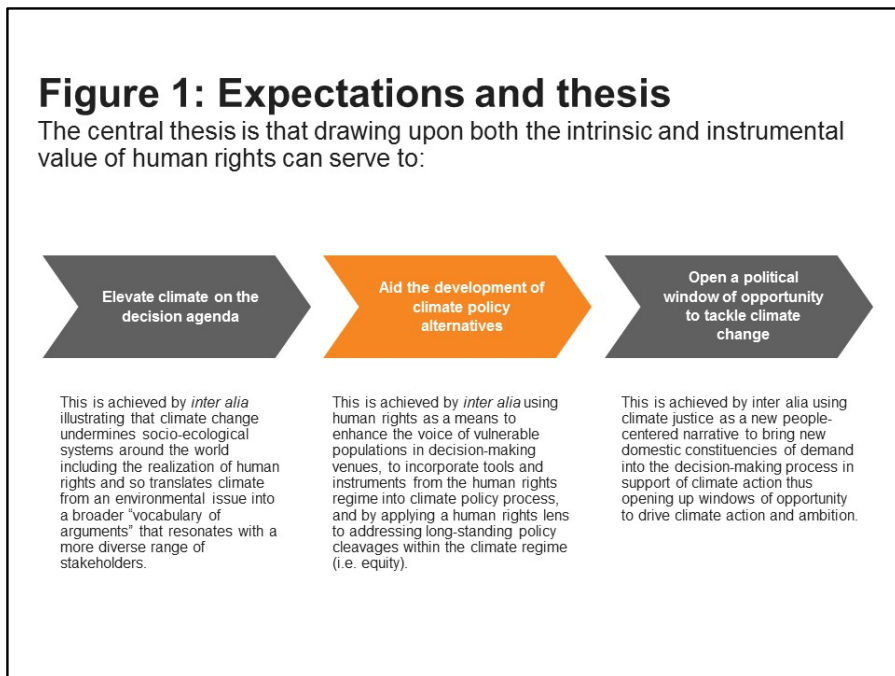
The theory of change is informed by pioneering analysis of public policy making by John W Kingdon and the theory of justice underpinning the work is heavily influenced by the philosophy of Amartya Sen. Both the theory of change and the theory of justice have combined to shape a “theory of climate justice”, evident in the empirical work, and presented in this capstone.

The research has been shaped by the author’s own experience as a climate and development practitioner during the past 18 years, through comprehensive literature review, by conducting expert interviews with a wide variety of thought leaders working on the nexus of climate change and human rights; and by regularly convening focus groups comprised of practitioners from both the climate change and human rights regimes.

In 2007 the author worked with colleagues at the Maldives Ministry of Foreign Affairs to revamp approaches to climate policy and public diplomacy on climate change having concluded that the prevailing approach to addressing climate change – built on an ecological narrative, composed of a limited number

of advocates from a narrow field of disciplines, and largely isolated from other international regimes and the policy alternatives they created, was unlikely to succeed. So began a search for an alternative approach to generating urgency, elevating climate on the decision agenda, and shaping policy alternatives that were both ambitious and plausible from a political standpoint.

The empirical and analytical work produced during this research were created between 2009 and 2014 comprising a total of six peer reviewed articles published by law journals, research institutes, and development agencies. These articles explore numerous ways in which human rights can contribute to agenda, alternatives and policies conducive to climate compatible development; and target distinct but related constituencies charged with building a low carbon future. As a result some of the articles are aimed at development practitioners working within multilateral development banks (MDBs); whereas others are directed towards diplomats and negotiators operating within the United Nations Framework Convention on Climate Change (UNFCCC).



**II. Expectations and assumptions**

This research was able to examine the nexus between human rights and climate change by building upon the foundations of an earlier interface between human rights and environment. The conceptual roots of this earlier interface can be traced to the discussions and subsequent outcomes of the United Nations Conference on the Human Environment held in Stockholm in 1972. At the concluding session of the Conference, the participants adopted a final declaration with the Preamble proclaiming that: "both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the

enjoyment of basic human rights, including the right to life itself”.<sup>2</sup> Stockholm was also notable as the first major conference on environment and development to identify two specific equity principles that have guided climate negotiations ever since – the principle of equity between nations (inter-state equity) and the principle of equity across generations (inter-generational equity).

In 2005, a petition to the Inter-American Commission on Human Rights prepared by the Center for International Environmental Law (CIEL) and Earthjustice and submitted by the Inuit people of Alaska and Canada, sought to develop this discourse and draw a link to the growing threat of global climate change. This petition requested relief for a violation of human rights resulting from global warming, allegedly caused by acts and omissions of the United States. The Inuit argued that the adverse impact on wildlife from climate change coupled with changes in the location number and health of plant and animal species, violates their fundamental human rights to life, property, culture, and means of subsistence.<sup>3</sup> Although the petition was rejected without prejudice in November 2006 it led to an explosion of advocacy and academic work. This included a new political initiative focused on the human dimensions of climate change initiated by the Foreign Ministry of the Government of the Maldives, the first state-led initiative to link human rights and climate change, which in turn spawned two United Nations Human Rights Council (UNHRC) Resolutions and the incorporation of human rights language into the UNFCCC for the very first time. As the Maldives work began, the need for a systematic approach to test assumptions, clarify any biases and refine the strategy based on a solid evidence emerged and gave rise to this research.

Initially the research explored whether climate change undermines the realization of human rights. The assumption that climate-related impacts would progressively prevent the fulfillment of a range of internationally recognized human rights was validated in the early stages of the research. The evidence of this was embryonic at best as this research began as the bulk of scientific assessments focused on ecological impacts. However, a far greater evidence base has been created over recent years as scientists, scholars and development agencies have honed their assessments to examine climate impacts on human systems.

The combination of literature review, interviews and focus groups conducted for this research, coupled with the author’s own observations as a participant in development and climate policy circles, results in an authoritative account of socio-ecological harms leading to the undermining of human rights. The International Food Policy Research Institute (IFPRI) estimates that the risk of hunger resulting from declining production due to climate change will increase by up to 20 percent by 2050. Temperature rises beyond 2°C are predicted to increase the number of people at risk to poverty and hunger, leaving an additional 600 million facing acute malnutrition by 2080.<sup>4</sup> This clearly impacts the human right to adequate food, as recognized in several instruments under international law. For example, Article 11 of the International Covenant on Economic, Social and Cultural Rights governments recognize “the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing

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<sup>2</sup> United Nations (1972), p.4.

<sup>3</sup> CIEL and Earthjustice (2005).

<sup>4</sup> Nelson G.C. and van der Mensbrugge, D (2009).



and housing, and to the continuous improvement of living conditions”, while pursuant to article 11.2 they recognize that more immediate and urgent steps may be needed to ensure “the fundamental right to freedom from hunger and malnutrition”.<sup>5</sup>

The conclusion that climate change undermines the realization of rights inevitably validates the notion that urgent and ambitious action to reduce greenhouse gas emissions is an essential pre-requisite to safeguarding human rights. The empirical work conducted for this research presents depth of analysis on the rights implicated by climate change and illustrations are provided in Parts II and V of this capstone.

One of the initial expectations was that the research would reveal that climate change has a disproportionate impact on the poor and marginalized and consequently the findings of this investigation could lead to new tools for these vulnerable groups to shape policy alternatives conducive to building their own resilience. This has also been validated by the research. The world’s poor are particularly vulnerable to climate change as they often rely on small-scale rain-fed farming systems and agricultural labor as their major sources of food, often derive up to two thirds of their income directly from climate-affected natural resources; lack the assets that would enable them to cope with climate-related crises and adapt to climate change; and are most exposed to the health risks arising from pollution, poor sanitation and unclean water. In periods of stress they may be forced to sell off their physical assets such as land, fishing boats, livestock or market stalls, thereby undermining the sustainability of their livelihoods over the longer term. As Pope Francis illustrates in the 2015 Encyclical, “the deterioration of the environment and of society affects the most vulnerable people on the planet: both everyday experience and scientific research show that the gravest effects of all attacks on the environment are suffered by the poorest”. For example, the depletion of fishing reserves especially hurts small fishing communities without the means to replace those resources; water pollution particularly affects the poor who cannot buy bottled water; and rises in the sea level mainly affect impoverished coastal populations who have nowhere else to go.”<sup>6</sup>

Women are also highly vulnerable as they may be constrained by social and cultural structures that place them in inferior social positions, limiting their access to income, education, public voice, and survival mechanisms. The 1991 cyclone in Bangladesh illustrates many of these issues. More than 90% of the estimated 140,000 fatalities were women; their limited mobility, skills set and social status exacerbated their vulnerability to this extreme weather event.<sup>7</sup> Indigenous Peoples are also extremely vulnerable to the impacts of climate change as they often live in ecosystems particularly prone to the effects of climate change including Polar Regions, humid tropical forests, high mountains, small islands, coastal regions, and arid and semi-arid deserts. Their dependence on local environmental services for homes, medicines, livelihoods, and cultural sustenance means they are disproportionately affected both by climate change and by climate action. They are also among the poorest and most socially excluded people in the world.

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<sup>5</sup> United Nations. (1966a), p.4.

<sup>6</sup> Pope Francis (2015), pp. 33-34.

<sup>7</sup> Oxfam International (2008).

A basic premise underpinning this research from the outset is that traditional approaches to adaptation – centered on the exposure of risk – represents a one dimensional approach to vulnerability. This leads to adaptation interventions such as the construction of flood defenses or the provision of drought-resistant seeds. While these interventions are undoubtedly important, the argument is that vulnerability is in fact a combination of exposure to risk, sensitivity to risk, and adaptive capacity. Validating the importance of both sensitivity and adaptive capacity as part of a broader understanding of climate vulnerability shapes new policy alternatives for resilience building. For example, providing vulnerable groups with access to information, decision-making, and justice; tackling issues such as discrimination and inequality; promoting economic inclusion; and sharing financial, technological, physical, and knowledge assets can all minimize sensitivity and enhance adaptive capacity.

The instrumental value of human rights is further reflected in the ways that strengthening one right leads to benefits in others, which in turn contributes to climate resilience. Henry Steiner has argued that by definition all rights “are inherent goods, but they also constitute instrumental goods”. By illustration he explained that “the right to free speech is understood both as an inherent good, an inalienable and imperative right and as a means of enriching the marketplace of ideas and hence cultural and political processes”. He further described how “educating women makes educated children more likely. Healthy, well-educated people make an economy more productive. Improving the nutrition, health and education of workers leads to gains in worker productivity; particularly primary education enhances such productivity. Adequate food and housing reduce the need for health care, adequate health care enables people to undertake work and education, education in turn improves health and spurs the economy”.<sup>8</sup>

A starting hypothesis was that the toolkit for vulnerable populations might include a new and powerful narrative in support of urgent and ambitious climate action. The British author Anthony Giddens has used the term “foregrounding” to describe the process of turning an issue from one that simmers in the back of the mind of politicians and the public at large to one that is elevated to the top of the political agenda.<sup>9</sup> The theory was that a human-centered narrative on climate change, complementing the science and the historical focus on biodiversity and ecosystems, would provide a story that would resonate with a wider audience, and ultimately aid the elevation of climate change on the decision agenda. This recognized three key strengths present in a climate justice framing and absent from traditional communications on climate change. First, the climate justice narrative draws upon morals, ethics, faith and the human dimensions of climate change. As a consequence it appeals to constituencies that have not previously been part of the environmental community and resonates with the public at large in a manner not currently served by complex science or descriptions of changing weather patterns. Second, the use of a justice narrative provides a unique opportunity for vulnerable populations to give voice to their own experiences and to shape policy interventions that address their vulnerability by making them full participants in climate action. Traditional approaches to addressing climate change have become subject to elite capture and have largely excluded vulnerable groups from decision making. By demanding

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<sup>8</sup> Steiner, Henry J (1998), pp 25-42 and p30.

<sup>9</sup> Giddens, A (2009), p71.

voice and participation a justice narrative breaks down these barriers to entry for vulnerable and marginalized communities. Third, a new narrative helps to build bonds between the environmental / ecology movement and other civil society actors including faith-based initiatives, social justice advocates, and campaigners for political and civil rights. Together, these elements provide the basis for a wider vocabulary of arguments on climate change; the foundations for stronger and deeper constituencies of demand for ambitious climate interventions, and consequently a platform for more authoritative advocacy.

As noted above, the bulk of the early scholarly work on human rights and climate change focused on legal remedies and approaches. Consequently this research began with the assumption that human rights law would provide a valuable avenue for vulnerable populations who had grown frustrated with international climate politics.

The empirical work is unable to validate the idea that a purely legal approach to the nexus between climate change and human rights is sufficient to drive ambition. Dr Stephen Humphreys of the London School of Economics has neatly summarized three of the main limits to using human rights law to address climate change. He specifically cites “compliance” as many human rights including food, water and health are generally non-justiciable. He further names “extraterritoriality” as in general where climate harms are experienced by populations, the territorial state is not responsible, but the responsible states escape human rights law. And finally, mentions “causation” as it is difficult to establish a direct causal link between specific emissions from a specific source to direct harm to any one individual or community.<sup>10</sup> Moreover, the US Government has stated that “an impairment of the enjoyment of human rights is not the same as a violation of human rights, which involves a government’s failure to abide by its international human rights obligations”.<sup>11</sup> The US submission to the Human Rights Council in Geneva cites the lack of an international legal basis to a safe climate or environment in the nine core human rights instruments and in international customary law; and the fact that climate change is a highly complex global problem created by a diffuse set of actors from a broad array of human activities. The US government concludes that these characteristics do not lend themselves to a human-rights based approach because such a framework requires identifiable violations, identifiable harms attributable to the violations, and for remedies to be provided by the government to individuals within its territory and jurisdiction.<sup>12</sup>

However, it should be noted that a significant number of scholars and states hold a different view and continue to explore legal remedies under human rights law for populations affected by climate change. This research therefore avoids taking a definitive view but instead has tried to provide equal space to both proponents and opponents of this approach as both sides of this debate present arguments that are both legitimate and contestable and it may be too soon to judge the prospects of such an embryonic approach to tackling climate change impacts.

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<sup>10</sup> This material is drawn from Dr Humphrey’s presentation titled “Limits and Opportunities of Human Rights Law in Climate Change”. Dr. Humphreys was speaking at workshop on climate justice convened by the Oak Foundation in October 2013.

<sup>11</sup> US Government (2008), p6.

<sup>12</sup> US Government (2008), p.6.

A further theory informing this research assumes that using a climate justice approach could offer new and innovative ways to frame equity and the principle of “Common But Differentiated Responsibilities and Respective Capabilities” (CBDRRC) within the international climate negotiations, consequently opening new avenues to reconcile the twin need for climate ambition and development paths for vulnerable populations.

The first and most prominent equity question concerns “inter-state equity”. Essentially, this is a dispute stretching back over four decades that seeks to balance burden sharing between countries. In the 1970’s this was very much a divide between the global north and the global south. Today those lines have become blurred as a result of the emergence of dynamic economies particularly in Asia and Latin America. Nevertheless key questions remain including:

- Who should carry the burden of emissions reductions – the industrialized countries, the major polluters, or all countries together according to their respective capacities?
- Who should provide financing for low carbon development? Should this burden rest with industrialized countries and be considered a form of reparations for previous pollution or should finance be determined by the size of the national economy and national wealth?
- Should technology transfer to catalyze low carbon development trump the need to protect intellectual property and research investments in private enterprises?

The second concern deals with “intra-state” equity. The essential arguments here are first that focusing on burden sharing between countries misses the reality of deep inequality within countries. So-called luxury emissions generated by the wealthy irrespective of nationality require a focus on all vulnerable, marginalized, and disadvantaged groups irrespective of nationality.

The third strand deals with inter-generational equity: The focus here is on preserving natural capital for future generations. Again there are multiple sides to this argument. There is an argument for frontloading of climate action with a focus on urgency and ambition in the short-term in order to hand a viable socio-ecological inheritance over to the next generation. On the other hand there is an equally legitimate argument that the development of new technologies, fuel-types and even geo-engineering will provide future generations with options to tackle climate change that are not available today and as a result it would be a mistake to jeopardize development aspirations today to carry the burden of climate action.

The fourth strand looks at gender issues: The main thrust in this school is to spotlight the specific vulnerability of women; to promote women as agents of change in the household, workplace and community at large; and to advance interventions designed to empower women to become more effective agents of climate action.

Needless to say these questions are complex, divisive and often emotional. They are frequently tangled up in other geopolitical debates on global inequality, the concentration of resource use, and even the legacies of colonialism.

As the research progressed it became clear that climate policy responses could also undermine the realization of rights if poorly designed and implemented. Again, the evidence base for this became compelling through the systematic review of development interventions, assessments of climate policy impacts, interviews with policy practitioners, and discussion with marginalized and vulnerable groups disproportionately affected by climate policy responses. For example, the right to food may be undermined by changes in land use, on the one hand, and by increasing prices of food where biofuels derive from food products, on the other. The right to health may be infringed where aerial spraying of pesticides of the biofuel plantations affects neighboring communities and/or surrounding crops. The application of pesticides without adequate safety measures may also compromise workers' rights. The design of carbon taxes can also undermine rights if not designed to protect low income families from increased costs of basic necessities such as food and energy.

All of these issues are explored at length in the empirical work presented in Part V.

## Part II: The Policy Setting

*Part II provides an analysis of the challenge of global climate change and the international policy environment that has been developed in response. These aspects are addressed in the following sections:*

- *The scientific consensus on global climate change*
- *The socio-ecological impacts of climate change*
- *The purpose and setting for international climate policy*

*It is clear from the research that the global community has thus far failed to design and implement effective policy alternatives in response to the challenge of global climate change in spite of overwhelming understanding of climate science and the preponderance of global institutions established to deal with the climate threat. This is in part due to failure to sustain climate action as a “front-of-mind” issue at the top of the political decision agenda.*

### I. **The scientific consensus on global climate change**

The Greenhouse Gas Effect – the basic process that drives global climate change – is relatively simple science. Indeed the author Nate Silver has written that the “science behind the greenhouse gas effect was simple enough to have been widely understood by the mid- to late- nineteenth century, when the lightbulb and the telephone and the automobile were being invented – and not the atomic bomb or the iPhone or the Space Shuttle. The greenhouse effect isn’t rocket science”<sup>13</sup>. Essentially, the Earth’s climate system includes the land surface, atmosphere, oceans, and ice. The Earth is warmed by the sun and cooled by emitting radiation to space. About 30% of the sunlight is reflected back into space while the other 70% is absorbed, warming the surface and lower atmosphere. GHGs prevent radiation from escaping into space by absorbing and releasing infrared radiation throughout the atmosphere, which in turn warms the Earth’s surface and lower atmosphere.<sup>14</sup>

The science of climate change can be traced back almost two hundred years<sup>15</sup>. Our contemporary understanding of climate science is the result of a growing body of evidence, constructed by scholars and scientists across a broad spectrum of disciplines, and meticulously assessed by the Intergovernmental Panel on Climate Change (IPCC). The IPCC was established in 1988 under the auspices of the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to undertake periodic and up-to-date assessments of climate science and to serve as an interface between science and policymaking. Every five to seven years the IPCC produces a comprehensive assessment of the Earth’s climate, prepared by hundreds of climate specialists, and based on analysis of thousands of

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<sup>13</sup> Silver, Nate (2012), p.447.

<sup>14</sup> Melillo, Jerry M., Richmond Terese (T.C.), and Yohe, Gary W. (2014)

<sup>15</sup> See for example: Goldstein, Natalie (2010); Broecker, R and Kunzig, W (2009); Pooley, Eric (2010).

scientific peer-reviewed papers. The draft chapters are then subjected to the most rigorous review before being endorsed by governments in the final Assessment Report. The collection of five reports released in 1990, 1995, 2001, 2007, and 2014 have become the evidence base for virtually all climate change related strategies developed by businesses and national governments, as well as international climate agreements<sup>16</sup>.

The first IPCC report, issued in 1990, concluded that the global climate was warming and that the enhanced greenhouse effect would likely raise globally average temperatures several degrees by 2050.<sup>17</sup> The Fifth Assessment Report published in 2014 is the most detailed examination of climate change ever.<sup>18</sup> It is based on more data, contains more detailed regional projections, and is more confident about its conclusions than any other global assessment to date. The conclusions are stark and the scientific consensus is clear. A new world characterized by rising temperatures, increasing frequency and intensity of extreme weather events, the inundation of coastal cities with many wet regions becoming wetter and dry regions becoming drier, an irreversible loss of biodiversity, rainforest dieback, and rising sea levels is being forged by excessive emissions of greenhouse gases.<sup>19</sup> The IPCC states that “since the 1950s, many of the observed changes are unprecedented over decades to millennia.”<sup>20</sup> These changes are driven by increasing concentrations of GHGs to levels unprecedented in at least the last 800,000 years.<sup>21</sup> The global mean temperature has already increased 0.8°C above preindustrial levels and climate models project global mean temperature rise in the range of 1.5°C to 4.5°C by the end of the century.<sup>22</sup> For years the scientific consensus has stated that to avoid dangerous climate change, temperature rise must be limited to 2°C above preindustrial levels.<sup>23</sup> These findings are reinforced by research conducted by the World Bank, which estimates that, based on current trends, the world is likely to warm by 4°C by the end of the century.<sup>24</sup>

This level of global warming does not seem significant in the context of any given day where temperatures can fluctuate considerably. However, consider that in the Earth’s past, changes of only a few degrees in global average temperature has been associated with extreme changes in climate. For example, at the peak of the last ice age 20,000 years ago when glaciers thousands of feet thick covered most of North America, the average temperature of the Earth was only about 5°C colder than it is today.<sup>25</sup>

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<sup>16</sup> University of Cambridge (2013).

<sup>17</sup> Houghton, J.T., Jenkins, G.J. and Ephraums, J.J. (1990).

<sup>18</sup> IPCC (2013).

<sup>19</sup> IPCC (2013).

<sup>20</sup> IPCC (2013), p.3.

<sup>21</sup> IPCC (2013).

<sup>22</sup> IPCC (2013).

<sup>23</sup> IPCC, (2007a).

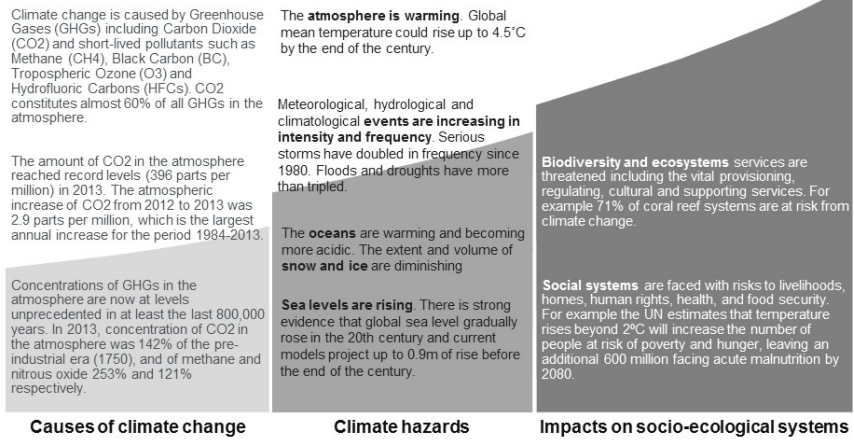
<sup>24</sup> World Bank (2012).

<sup>25</sup> Dessler, A., and Parson, E. (2006).

## Figure 2: From climate science to impacts

According to the IPCC climate change is “unequivocal, accelerating, and human induced”. Climate impacts are likely to be “severe, pervasive, and irreversible”. Many changes are unprecedented over decades to millennia.

Source: Intergovernmental Panel on Climate Change (IPCC) (2013) “Summary for Policymakers.” In *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge and New York.



How can the IPCC be so sure about these changes in the climate system? The peer-reviewed science examines six potential causes for the observed warming: orbital variations, tectonic processes, internal variability, volcanic eruptions, solar variability and human contributions through emissions of greenhouse gases. The weight of evidence suggests that the five potential natural causes are unlikely to have contributed more than a small fraction of the rapid warming over the past few decades.<sup>26</sup> In 2014, the United States government published its “Third National Climate Assessment”, which concurred with the IPCC assessment that the primary drivers of climate change are human activities. The US analysis highlighted that scientists and engineers from around the world and across many decades have drawn evidence from satellites, weather balloons, thermometers at surface stations, and many other types of observing systems that monitor the Earth’s weather and climate. The authors of the US report further concluded that the signs are evident from the deepest oceans to the limits of the atmosphere. Accordingly, the consensus was that the “sum total of this evidence tells an unambiguous story: the planet is warming” and “the primary drivers are human in origin”.<sup>27</sup>

<sup>26</sup> Ibid.

<sup>27</sup> Melillo, J., Richmond T., and Yohe, G. (2014), p.22.



An understanding of the long history of climate science is important for a number of reasons. First, opponents of climate action often cite unsettled science as a reason to postpone policy<sup>28</sup>. This is simply not reflected in the evidence.

In 2005, Naomi Oreskes searched for articles published between 1993 and 2003 with the keyword phrase “global climate change”. She found 928, read the abstracts of each and classified them. None-rejected anthropogenic climate change.<sup>29</sup>

This mirrors a similar exercise conducted by James Lawrence Powell. He discovered 13,950 articles using the keyword phrases “global warming” or “global climate change” were published in peer-reviewed scientific journals between 1<sup>st</sup> January 1991 and 9<sup>th</sup> November 2012. The articles have a total 33,690 individual authors. Of these only 24 rejected the scientific consensus on anthropogenic global warming. As Powell illustrates, “within science, global warming denial has virtually no influence. Its influence is instead on a misguided media, politicians all too willing to deny science for their own gain, and the gullible public”.<sup>30</sup>

In 2013, a team of scientists published the results of an exhaustive survey of over 12,000 peer-reviewed climate science papers. They analyzed the evolution of the scientific consensus on anthropogenic global warming (AGW) in the peer-reviewed scientific literature, examining almost 12,000 climate abstracts from 1991 to 2011. They discovered that slightly over 66% of abstracts expressed no position on AGW, slightly over 32% endorsed AGW, and 0.7% rejected AGW. Therefore, among abstracts expressing a position on AGW, 97.1% endorsed the consensus position that humans are causing global warming. Their analysis indicates that the number of papers rejecting the consensus on AGW is a “vanishingly small proportion of the published research”.<sup>31</sup>

Understanding of the climate system is evolving all the time resulting in increasing confidence in the greenhouse gas effect. As this research was drawing to a close a new paper published by the United States National Oceanic and Atmospheric Administration and profiled in the journal *Science* contained data that undermined the notion of a global warming slowdown. This is the notion that beginning around 1998 global warming had slowed down, an argument that climate skeptics used with relish in an attempt to undermine the basic science of the greenhouse gas effect.<sup>32</sup> The paper reveals that the “central estimate for the rate of warming during the first 15 years of the 21<sup>st</sup> century is at least as great as the last half of the 20<sup>th</sup> century”.<sup>33</sup>

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<sup>28</sup> An article in the Wall Street Journal in September 2014 by Steven E. Koonin, undersecretary for science in the United States Energy Department and chief scientist of BP kicked off the latest round of arguments from climate deniers (available from: <http://www.wsj.com/articles/climate-science-is-not-settled-1411143565>). For a more comprehensive assessment of the principal climate change denial arguments refer to: Washington, H., and Cook, J. (2011) *Climate Change Denial: Heads in the Sand*. Earthscan, London.

<sup>29</sup> Oreskes (2004).

<sup>30</sup> Powell, J (2012) Why climate deniers have no scientific credibility - in one pie chart. Available from:

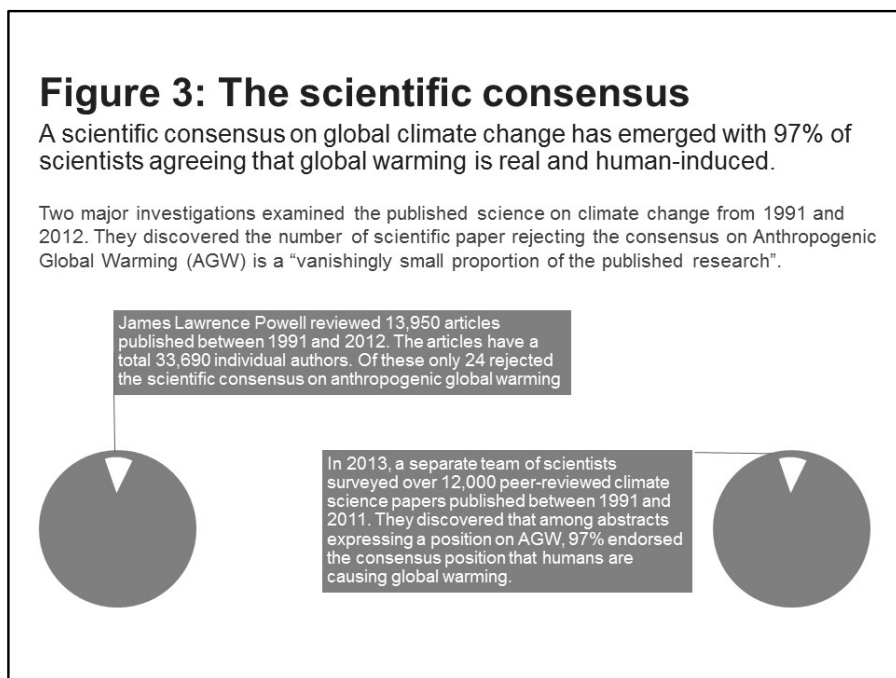
<http://www.desmogblog.com/2012/11/15/why-climate-deniers-have-no-credibility-science-one-pie-chart>

<sup>31</sup> Cook, J; Nuccitelli, D; Green, S; Richardson, M; Winkler, B; Painting, R; Way, R; Jacobs, P; and Skuce, A (2013), p.7.

<sup>32</sup> Gramling (2015), p.1066.

<sup>33</sup> Karl et al (2015), p.1469.

This is the latest setback for those who argue that climate change is a hoax. As Eric Pooley has pointed out, “for those who consider climate change to be a left-wing plot consider this: such a plot would require the cooperation of the remarkable set of co-conspirators including thousands of scientists at hundreds of independent research institutions and 32 national academies of science”.<sup>34</sup>



Why has the weight of scientific evidence been an insufficient catalyst for urgent and ambitious action on climate change? Communications specialists argue that the climate community has failed to follow best practice in messaging climate change. At a focus group convened in Washington, DC in July 2014, more than 40 communications experts concluded that climate communications was too technical; jargon filled; focused too heavily on inaccessible science; had not been translated into simple messages that could be repeated often; was rarely tailored to specific audiences; and crucially tended to focus on ecology rather than on the human narratives that tend to resonate with the general public.<sup>35</sup>

Understanding the history of climate science is important for a second reason with substantial relevance for this research. The realization that climate change is not a new issue should lead to a critical analysis of

<sup>34</sup> Pooley (2010), p.38.

<sup>35</sup> Conclusions from the “Climate Communications Dialogue” convened by the author and hosted by BSR, the Oak Foundation, and the United Nations Foundation in Washington DC on 9th and 10th July 2014. This was one of five focus groups convened during the course of this doctoral research.

previous policy approaches. If effective policy responses remain elusive despite cumulative evidence over many decades, this alone could provide impetus for a rethink.

## II. *The socio-ecological impacts of climate change*

The socio-ecological impacts of climate change are analyzed at length in the empirical work submitting alongside this capstone. Specifically, this combined body of research has looked at how climate change alters heat, disease vectors, weather, water, and the chemical composition of soils and ocean water. These lead to impacts on biodiversity and ecosystem services including both marine and terrestrial systems. This in turn has multiple effects on the full spectrum of human systems including *inter alia* jobs, food, housing, mobility, poverty alleviation, human rights, health and lives. It is important to make a clear distinction between environmental and social impacts as one of the fundamental propositions in this research is that looking at climate from a human perspective alters diagnosis of thresholds, enhances ability to elevate climate on the political decision agenda, and revises the scope and types of policy alternatives that are developed by international policy makers.

The IPCC states that impacts of climate change are already severe, pervasive, and irreversible, with significant implications for social-ecological systems. Ecological systems are already suffering from loss of critical habitat, heightened risk of species extinctions, and damage to ecosystem services.<sup>36</sup> Approximately 20 to 30 percent of plant and animal species are likely to face an increased risk of extinction if the 2°C temperature threshold is exceeded. Entire ecosystems, which are not only important in their own right, but also provide essential services – economic, cultural, medicinal and spiritual - could be destroyed, with everything from medicines and clothing to irrigation and crop pollination threatened.<sup>37</sup> For example, one study of the economic benefits of tourism from coral reefs, which focused on the Australian Great Barrier Reef, estimated the annual benefit to the Australian economy of between US\$700m and 1.6bn, with wider benefits to more distant countries.<sup>38</sup> The value of coral reefs is derived from the services they provide including fisheries, gene pools, coastal protection and as destinations for tourists. Coral reefs are already declining due to over-fishing, mining and pollution. Coral bleaching is proceeding at unprecedented rates due to warming ocean temperatures as well as acidification caused by deposits of carbon dioxide (CO<sub>2</sub>) in the oceans.

The landmark Stern Review on the Economics of Climate Change prepared by Sir Nicholas Stern predicted that temperature rises in excess of 2°C will result in as many as 4 billion people experiencing growing water shortages.<sup>39</sup> The most heavily impacted populations would be in Africa, the Middle East, southern Europe, and Latin America.

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<sup>36</sup> IPCC (2014).

<sup>37</sup> UNDP (2005).

<sup>38</sup> Barrie Pittock, A. (2005).

<sup>39</sup> Stern, N (2006).

In addition, the UN predicts that temperature rises beyond 2°C could lead to 600 million additional people facing acute malnutrition by the 2080s.<sup>40</sup> The agricultural sector is one of the most high-risk as climate-related impacts are expected to lead to increased scarcity and reduced security of resources. Impacts include reduced access to freshwater; crop yield losses by as much as 2% per decade for the rest of the century compared to a scenario without climate change; unpredictable price and market volatility for agricultural commodities; amplified damage to agricultural production as a result of weeds and pests; and substantial losses to the land-based ecosystems and the functions they provide to agricultural production, food security and rural livelihoods. Without adaptation, local temperature increases of 1°C or more above preindustrial levels are projected to negatively impact yields for the major crops such as wheat, rice, and maize in tropical and temperate regions. These projected impacts will occur in the context of rising global crop demand, projected to increase by about 14% per decade until 2050.<sup>41</sup>

Climate change does not recognize national boundaries. While many regions are more sensitive to climate impacts as a result of varying levels of adaptive capacity, all regions of the globe are increasingly exposed to climate-related events.

In the United States, climate-related events including prolonged periods of heat, heavy precipitation, flood and droughts have become more intense and more frequent with many coastal and river-side cities experiencing more flooding. Moreover, Insurance rates are rising in some vulnerable locations, and insurance is no longer available in others. Hotter and drier weather and earlier snowmelt mean that wildfires in the West start earlier in the spring, last later into the fall, and burn more acreage.<sup>42</sup>

In Europe, the heatwave of 2003 provided a snapshot of the continent's vulnerability to climate impacts. The heatwave was deemed to be the hottest in Europe since 1500 with temperatures in the United Kingdom exceeding 100°F for the first time since record keeping began in the 1870s and parts of Switzerland reaching record highs of 106.7°F. As many as 50,000 people died of heat related causes. Damage to crops was estimated at \$12 billion, wildfires in Portugal caused \$1.5 billion more in losses, and some of the glaciers of the Alps lost as much as 10% of their mass.<sup>43</sup>

Asia is particularly vulnerable to climate change. According to economic analysis conducted at the Grantham Institute in London, around 150 million people in Asia and \$1 trillion of economic assets would be directly exposed as a result of projected sea-level rise. Meanwhile, the loss of glacial melt water feeding into the Ganges River would reduce July to September flows by two thirds causing severe water shortages for 500 million people in 37% of India's irrigated land.<sup>44</sup>

The financial costs of climate change are also significant. Analysis by Mercer estimates the cumulative, global cost of climate change-related impacts on the environment, health, and food security will reach

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<sup>40</sup> UNDP (2007).

<sup>41</sup> Cameron, E (2014).

<sup>42</sup> Melillo, J., Richmond T., and Yohe, G (2014).

<sup>43</sup> Pooley, E (2010).

<sup>44</sup> Stern, N (2009).

between US\$2 trillion and US\$4 trillion by 2030.<sup>45</sup> The World Economic Forum (WEF) reports that Hurricane Sandy cost more than US\$70 billion in damages in New York and New Jersey alone.<sup>46</sup> The record U.S. drought in 2011 led to US\$7.62 billion in losses in Texas, and in 2012, more than 1,000 counties in 29 U.S. states were designated primary natural disaster areas by the U.S. Department of Agriculture from another record drought that suppressed farming profits and drove up the price of soybeans and corn.<sup>47</sup>

The need to respond to these socio-ecological impacts has prompted action at a global scale based on twin pillars of mitigation (meaning GHG emissions reductions) and adaptation (focused on enhancing capacity to absorb and rebound from climate impacts). In 2007, the United Nations Foundation provided a taxonomy to this approach by urging action to avoid the unmanageable warming beyond 2°C while managing the unavoidable impacts of climate change.<sup>48</sup> In recent years, this compact phrase has captured the dual approach needed to ensure resilience in a climate-constrained world.

According to the best available climate science, avoiding the unmanageable requires ambitious reductions in GHG emissions consistent with holding the global mean temperature rise to less than 2°C above preindustrial levels. This means going after the sources of GHGs in both geographies and sectors.

GHG emissions are measured in Metric Tons of Carbon Dioxide Equivalent (MtCO<sub>2</sub>eq), which describes how much global warming a given type and amount of greenhouse gas may cause, using the functionally equivalent amount or concentration of CO<sub>2</sub> as the reference. In 2010, China was the World's largest emitter of GHGs accounting for approximately 22.7% of the total. The United States accounted for a further 15.6% and the European Union, representing 28 member countries, accounted for 10.9%. The only other countries to account for 5% or more of the global total were India (5.7%) and Russia (5.4%). In terms of sectors, the primary sources of greenhouse gas emissions are electricity and heat (28%), agriculture (14%), transportation (12%), forestry (12%) and manufacturing (12%).<sup>49</sup> These figures do not tell the whole story because cumulative and historic emissions count for as much if not more than current emissions, in part because GHGs have long-lasting effects on the climate system, and in part because many developing country negotiators and scholars argue that developed countries have already used their own carbon budget as a result of historical emissions and are now trying to occupy atmospheric space that ought to be available for developing countries.

When historical emissions are considered the picture that emerges is that developed countries which account for about 14% of the global population are the source of around 70% of the emissions since 1950. Looking to the future, this trend is likely to shift with emerging economies and developing countries taking

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<sup>45</sup> Mercer (2011).

<sup>46</sup> World Economic Forum (2013).

<sup>47</sup> The Economist (2012).

<sup>48</sup> Scientific Expert Group on Climate Change (SEG) (2007)

<sup>49</sup> Emissions information for these data-points came from the World Resources Institute's CAIT database, which is accessible online at: <http://cait.wri.org>. CAIT compiles data that were originally collected by organizations including the International Energy Agency, EPA, the U.S. Carbon Dioxide Information Analysis Center, and the Food and Agriculture Organization of the United Nations. Global estimates for carbon dioxide are published annually, but estimates for other gases, such as methane and nitrous oxide, are available only every fifth year.

a larger share of global emissions. If developing countries continue along current emissions trajectories in 20 years they will emit as much as the current total world emissions of over 50 gigatons of CO<sub>2</sub> equivalent per annum, which by would constitute more than 70% of global emissions.<sup>50</sup> The changing patterns of responsibility for causing climate change has been described as the “brutal arithmetic” of climate change as the need for emissions reductions in line with climate science comes up against legitimate aspirations in emerging economies to follow traditional development pathways fueled by cheap fossil fuels.

Two further layers of complexity confuse the picture still further namely the difference between so-called production and consumption emissions and additionally the difference between luxury emissions and survival emissions. GHG inventories are normally based on where the emissions are produced rather than where the finished goods or services are consumed. However, consumption-based accounting of emissions reveals that in 2004, 23% of global CO<sub>2</sub> emissions were traded internationally, primarily as exports from China and other emerging markets to consumers in developed countries. 22.5% of the emissions produced in China in 2004 were exported, on net, to consumers elsewhere.<sup>51</sup>

Managing the unavoidable means enhancing adaptive capacity in the face of inevitable climate impacts. There are two main approaches to enhancing adaptive capacity: First generation adaptation is often referred to as “climate-proofing” and typically refers to interventions in infrastructure that attempt to minimize the consequences of exposure to climate change risks (e.g. flood defenses or seawalls). This approach may address the symptoms rather than the root causes of vulnerability. Second generation adaptation is a more development-oriented approach that tackles the underlying drivers of vulnerability, including factors that make populations sensitive to climate change impacts. In addition, this type of adaptation helps build resilience not only to climate change but also to other stressors. These adaptation measures include investments in local early warning systems, health care and education, governance and legal reform, institutional capacity building, investment in gender initiatives, biodiversity and ecosystem services, and social safety nets.

The IPCC defines resilience as “the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.”<sup>52</sup> Resilience has always been understood as the ability to manage and rebound from risks, but understanding has deepened to the point where some risks are acknowledged as being so severe that they breach irreversible thresholds. Today climate policy – whether international or conducted at the local level – is therefore typically focused on striking a balance between avoiding the unmanageable by aggressively reducing emissions while managing the unavoidable risks of climate change by enhancing adaptive capacity.

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<sup>50</sup> Stern, N (2009).

<sup>51</sup> Davis, S., and Caldeira, K (2010).

<sup>52</sup> IPCC (2014), p. 5.

### III. ***The purpose and setting for international climate policy***

Avoiding the unmanageable and managing the unavoidable has been the essential task of the international climate policy regime for more than two decades. At the heart of this regime stands the United Nations Framework Convention on Climate Change (UNFCCC).

Remarkably, the UNFCCC was negotiated and came into force over a three year period, which seems extremely short with hindsight and the more recent experience of tortuous and drawn-out negotiations. The negotiations began in earnest in December 1990 when the UN General Assembly established the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC/FCCC), with a view to finalizing commitments at the Rio Earth Summit in June 1992. As Bodansky illustrates, it is notable how many of the cleavages that characterized the negotiations over that three period remain contentious today. The relative commitments of developed and developing countries; the nature of targets and timetables, and the scale of financial assistance and technology sharing were all paramount concerns in the final hours before agreement was reached.<sup>53</sup> Bodansky demonstrates a great deal of historical accuracy as well as foresight when he describes the Convention as representing “not an end point, but rather a punctuation mark in an ongoing process of negotiation”.<sup>54</sup> The 1992 agreement did not resolve the climate problem but rather pacified critical disputes leaving them to be addressed on another day. As a result those key cleavages persist more than two decades later. Nevertheless the Convention was opened for signature in Rio in June 1992 and came into force on 21 March 1994 ninety days after the 50th country’s ratification had been received.

Article 2 of the Convention outlines the overarching objectives of the UNFCCC stating “the ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.<sup>55</sup> Every subsequent Protocol, action plan, platform and call for action issued under the auspices of the UNFCCC can trace its origins back to this document and its fundamental task back to the need to avoid dangerous climate change. In a sense, every year is also haunted by the failure of the UNFCCC to deliver on this initial promise despite two decades of work.

The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. The Protocol was designed to build on the UNFCCC by strengthening the commitments of industrialized countries, or so-called “annex one parties” by developing policies and measures leading to quantified GHG emissions limitation and reduction objectives within specified time frames. In central provisions the Kyoto Protocol defines allowable greenhouse gas emissions for each industrialized country in terms of assigned amounts for the commitment period 2008-2012. On aggregate the commitments add up to a reduction of 5.2% below 1990 levels. The Protocol created three unprecedented mechanisms to

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<sup>53</sup> Bodansky, D. (2001).

<sup>54</sup> Bodansky, D. (2001), p.34.

<sup>55</sup> United Nations (1992a), p.4.

drive emissions reductions, which are still in use today and have spawned many national variations. These are emissions trading, the Clean Development Mechanism, and Joint Implementation.<sup>56</sup>

The Kyoto Protocol has proven to be enormously controversial because of the limited ambition in the emissions reductions; the decision by both Canada and Japan to withdraw from the first commitment period, and notably the decision of the United States to remain outside the Protocol despite being a strong early advocate. Indeed as Grubb illustrates, “the United States got virtually everything” in the Kyoto negotiations and if one wanted to discover “the source of most of the ideas in the protocol one only needs to read the US proposal of January 1997”.<sup>57</sup>

In Doha, Qatar, on 8 December 2012, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes new commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 1 January 2013 to 31 December 2020.<sup>58</sup>

A number of efforts have been made to develop an effective successor to the Kyoto Protocol over the years. In 2007 the Bali Action Plan<sup>59</sup> was launched with the aim of finalizing with the aim of reaching a new climate agreement but this famously ended in acrimony in Copenhagen in 2009.<sup>60</sup> Governments had been negotiating ways to create a shared vision of low-carbon development including action on emissions reduction (mitigation), adaptation, technology and financing. However, longstanding disputes on equity derailed the process. The Cancun agreements from 2009 repaired some of the damage by enabling countries to make voluntary commitments to emissions reductions.<sup>61</sup> Under the auspices of the Cancun agreements more than 90 countries have developed national climate action plans designed to reduce GHG emissions by 2020, including both developed and developing countries.<sup>62</sup>

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<sup>56</sup> “Emissions trading” allows countries that have emission units to spare - emissions permitted them but not “used” - to sell this excess capacity to countries that are over their targets. The “Clean Development Mechanism (CDM)”, allows a country with an emission-reduction commitment to implement an emission-reduction project in developing countries. Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO<sub>2</sub>, which can be counted towards meeting Kyoto targets. “Joint Implementation” allows a country with an emission reduction commitment to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO<sub>2</sub>, which can be counted towards meeting its Kyoto target. For more information please refer to the UNFCCC website at: [http://unfccc.int/kyoto\\_protocol/mechanisms/items/1673.php](http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php)

<sup>57</sup> Grubb, M., Vrolijk, C., and Brack, D (2001), p.112.

<sup>58</sup> UNFCCC (2012).

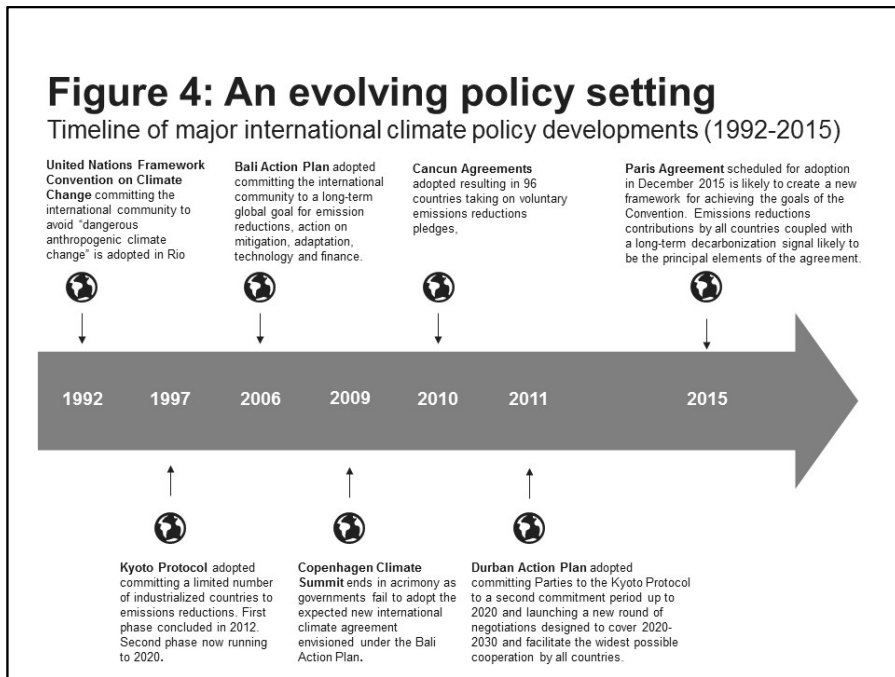
<sup>59</sup> UNFCCC (2007).

<sup>60</sup> UNFCCC (2010).

<sup>61</sup> UNFCCC (2009).

<sup>62</sup> UNEP (2012).





Today the negotiations are once more heading towards a decisive milestone. Meeting in Durban in December 2012, governments finalized the Durban Platform on Enhanced Action, which sets out a process to negotiate a new "protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties" to be adopted at the 21<sup>st</sup> Conference of the Parties (COP) to the UNFCCC scheduled for December in Paris. The text calls for "the widest possible cooperation by all countries and their participation in an effective and appropriate international response".<sup>63</sup> This begins to break down the traditional divide between developed and developing countries and points to an inclusive collective action approach. It also provides for reintegration under the same agreement of the developed countries that have remained outside Kyoto or withdrawn from the Protocol during the first commitment period. In recent meetings in Warsaw and Lima, 196 countries have re-confirmed their longstanding commitment to hold the increase in global average temperature below 2°C above preindustrial levels and have expressed their determination to capture this commitment in a comprehensive global climate agreement at a Paris summit in December 2015.<sup>64</sup> Many have already come forward with so-called Independently Nationally Determined Contributions (INDCs), essentially the climate actions they plan to take between 2020 and 2030. As of July 2015 43 countries covering 56% of territorial emissions have developed and lodged these plans with the UNFCCC.<sup>65</sup>

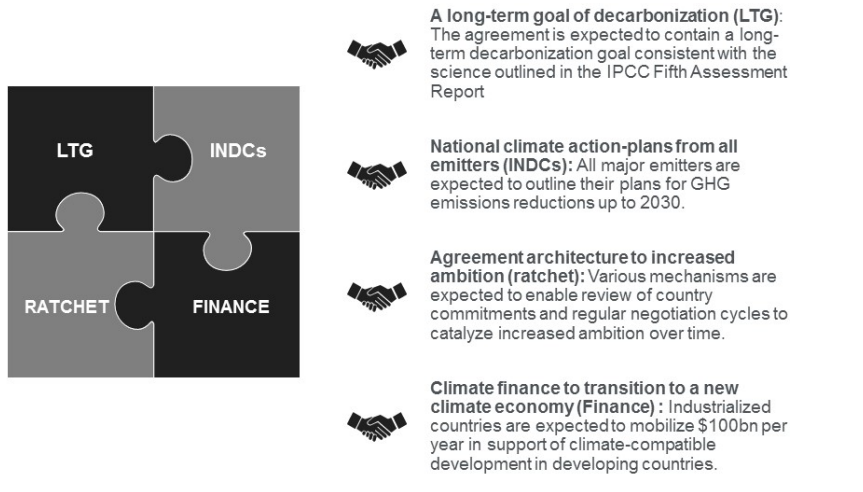
<sup>63</sup> UNFCCC (2011).

<sup>64</sup> UNFCCC (2014).

<sup>65</sup> These INDCs can be assessed through the UNFCCC INDC inventory located at: <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>

## Figure 5: The Paris agreement

The new international climate agreement, scheduled for adoption in Paris in December 2015, is likely to have five major components.



The anticipated Paris agreement is expected to send a number of signals to the wider world notably:

- The diplomatic agreement will send a high-level political signal committing governments to long-term decarbonization
- Decisions on climate finance will establish market signals and financial incentives.
- The INDCs, will send specific regulatory signals in key economies and markets.
- An “Action Agenda”, outlining action by non-state actors will mobilize action by sub-national authorities and the private sector.

In the 22 years since the Rio Earth Summit, The Framework Convention has become part of a wider climate regime complex<sup>66</sup>, complemented by a series of climate clubs and informal negotiations in venues such as the G20 and Major Economies Forum<sup>67</sup>; supplemented by climate-related measures under other international multilateral agreements; and spurred on by periodic high level gatherings convened by the United Nations Secretary General. However, the UNFCCC remains the primary driver of international climate policy and is thus the focus of this doctoral research.

<sup>66</sup> Keohane, R.. and Victor, D. (2010).

<sup>67</sup> Weischer, L., Morgan, J., and Patel, M (2012).

Action at the international level is further supported by a growing volume of activity in domestic policy settings. A report produced by the Global Legislators Organisation (GLOBE) reveals significant climate action in 33 countries, including many developing countries. It includes 17 of the top 20 emitters of GHGs and 24 of the top 50, representing more than 85 percent of global emissions. Overall, they report substantial legislative progress in 18 of the 33 study countries and limited developments in 14 others.<sup>68</sup> From emissions-trading systems in the European Union and China, to energy transformations in Germany and the United States, important steps toward a low-carbon future are being taken.

In the United States, The Obama Administration's Climate Action Plan directs the Environmental Protection Agency (EPA) to develop carbon-pollution standards for both new and existing power plants. The proposed rules require new plants to be 40% cleaner than the coal plants in operation today and would cap greenhouse gas emissions at about 50% the current limit. The plan, which commits US emissions reductions of 17% compared to 2005 carbon levels by 2020, provides financial and regulatory support to energy innovations, with a focus on efficiency and renewable energy sources.<sup>69</sup> This complements a range of actions taken by the US government since 2010 including new EPA standards on fuel economy for vehicles; natural gas systems; energy efficiency; and non-GHG regulations for power plants.<sup>70</sup> As a contribution to the international negotiations the US has also announced plans to reduce greenhouse gas emissions by between 26%-28% below 2005 levels by 2025.<sup>71</sup>

China's national climate change program was adopted by the National Development and Reform Commission in June 2007. Key features included work on energy intensity and renewable energy.<sup>72</sup> China has also launched carbon-trading pilots in seven provinces and cities. If successful this will create the largest emissions trading system in the world.<sup>73</sup> In 2014, China took the unprecedented step of committing to an approximate date for emissions to peak before the end of the next decade<sup>74</sup> and followed this with a more comprehensive INDC that also pledges to increase its non-fossil-fuel share of energy to around 20% by 2030.<sup>75</sup>

The European Union was an early mover on climate change, ratifying the Kyoto Protocol, and inaugurating the world's first emissions trading system in January 2005.<sup>76</sup> In October 2014 the EU agreed to reduce greenhouse gas emissions by at least 40%; to increase renewable energy by 27%; and to improve energy efficiency by 27% all above 1990 levels by 2030.<sup>77</sup> Arguably the most notable national policy in Europe is

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<sup>68</sup> Townshend, Terry, et al. (2013).

<sup>69</sup> Executive Office of the President (2013).

<sup>70</sup> Bianco, N., Litz, F., Meek, K., and Gasper, R (2013).

<sup>71</sup> Please see "U.S.-China Joint Announcement on Climate Change" available from: <http://www.whitehouse.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change>

<sup>72</sup> Cameron, E. and McMahon, H. (2010b).

<sup>73</sup> Han, G., M. Olsson, K. Hallding and D. Lunsford (2012).

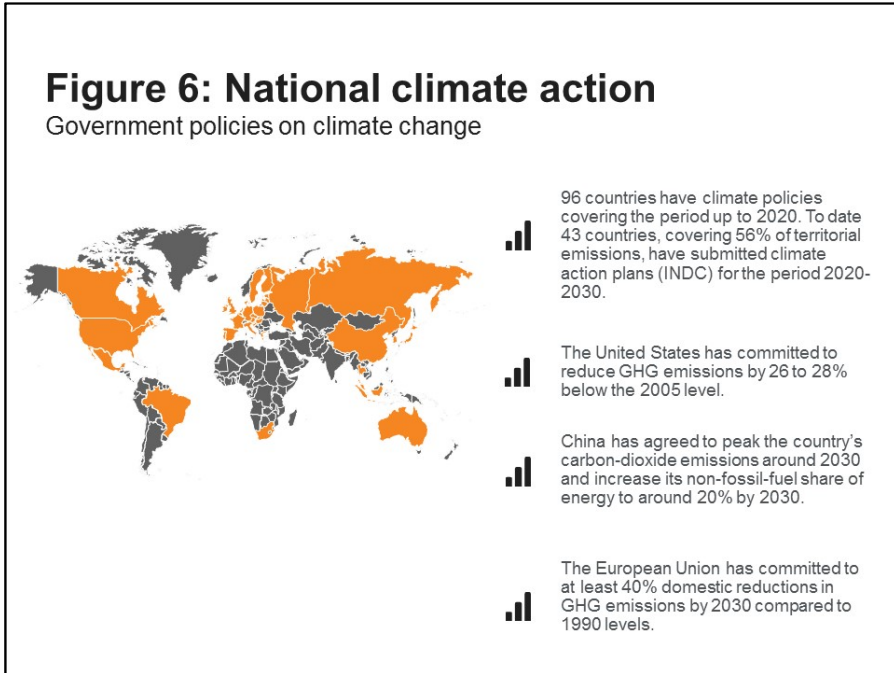
<sup>74</sup> Please see "U.S.-China Joint Announcement on Climate Change" available from: <http://www.whitehouse.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change>

<sup>75</sup> Government of China (2015).

<sup>76</sup> Cameron, E. and McMahon, H. (2010b).

<sup>77</sup> More information on the European Union climate package is available from the European Commission at: [http://ec.europa.eu/clima/policies/2030/index\\_en.htm](http://ec.europa.eu/clima/policies/2030/index_en.htm)

the German “*Energiewende*”. In 2011, Germany decided to completely phase-out nuclear power by 2022; and an accelerated phase-in of renewable energy to cover at least 35 percent of the country’s electricity needs by 2020 and 80% by 2050.<sup>78</sup>



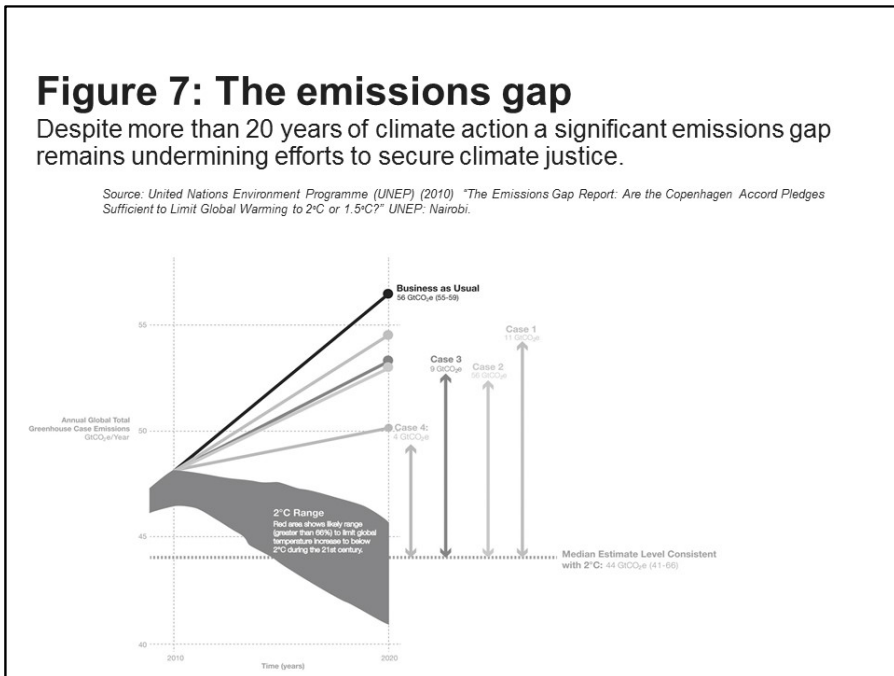
All these efforts both international and domestic point to an increase in the volume of action. But what about climate ambition? In the climate negotiations, “ambition” refers to countries’ collective will—through both domestic action and international initiatives—to cut global greenhouse gas emissions commensurate with the scale of the climate challenge and at a level consistent with avoiding dangerous climate change. Collective ambition is deemed to be lacking when the aggregate policies and actions of all countries are deemed insufficient to meet the 2°C goal. Countries are also judged on their own individual ambition levels both in terms of scope of commitments and also on whether they are effectively implementing climate policies. Beyond emissions reductions, ambition is also used to determine adequacy of finance, capacity building, and technology transfer support offered to help developing nations—arguably the countries that are most vulnerable to climate change—in order for them to mitigate and adapt to global warming’s impacts.

On this vital test of climate ambition it is clear that international climate policy is currently falling short. According to the United Nations Environment Programme (UNEP), emissions reductions consistent with

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<sup>78</sup> For more information on the *Energiewende* please refer to: <http://energytransition.de/>

a 2°C pathway require global GHGs to peak on or before 2020 at around 44 gigatons of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) (the high end of an acceptable range of 39 to 44 gigatons of CO<sub>2</sub>e); and for them to be 50 to 60 percent below their 1990 levels by 2050, CO<sub>2</sub> emissions would need to be reduced by around 3 percent per year between 2020 and 2050 for energy and industry.<sup>79</sup> In recent years the evidence base pointing to a significant gap between the current level of ambition of national pledges and emission levels consistent with 2°C temperature limit has been strengthened. UNEP’s series of studies titled “Bridging the Emissions Gap” have identified the gulf between business-as-usual emissions if no pledges are implemented and emissions consistent with a 2°C pathway as 12 GtCO<sub>2</sub>e (in the range of 9-18 GtCO<sub>2</sub>e), or almost as large as current total GHG emissions from the world’s energy supply sector. The UNEP report from November 2012 points out that even if the most ambitious level of current pledges and commitments were implemented by all countries – and under the strictest set of rules – there would be a gap of 8 Gt of CO<sub>2</sub> equivalent by 2020. If the world does not scale up and accelerate action on climate change without delay, emissions could rise to 58 gigatons (Gt) by 2020 and would likely lead to a 3-5°C temperature rise this century.<sup>80</sup>



<sup>79</sup> UNEP (2010).

<sup>80</sup> UNEP (2011).

Other indicators of ambition are also lacking. In 2009, developed countries committed to mobilizing US\$30 billion in “fast-start financing” between 2010 and 2012 as a stepping stone toward providing US\$100 billion per year in support of emissions reductions and resilience building. As of November 2013, these same countries have reported that they mobilized US\$35 billion. However, there is a great deal of debate over how much of this finance is new and additional rather than being diverted from existing overseas development assistance budgets.<sup>81</sup>

What is holding back ambition? A number of factors are at play including the failure to resolve the long-standing dispute over equity within the UNFCCC, the failure to build domestic constituencies of demand in key countries, and the inability to shape policy alternatives that are meaningful, plausible, and feasible.

Article 3 of the UNFCCC contains the language regarding equity that has informed the climate negotiations since 1992. Article 3 is entitled “Principles” and contains the following language *“The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities (CBDRRC). Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.”*<sup>82</sup>

The twin principles of equity and CBDRRC can trace their origins to Principle 23 of the Stockholm Declaration of 1972<sup>83</sup> and Principle 7 of the 1992 Rio Declaration.<sup>84</sup> Within the context of the climate regime, the equity debate has significant meaning for designing and agreeing different instruments for reducing GHGs for adapting to the inevitable impacts of climate change, and for establishing mechanisms for financing low carbon development and technology transfer.

Divisions regarding equity and CBDRRC have been especially focused on differentiation. The central equity question in the climate regime has focused on how the burden of emissions reductions should be shared across countries. For example, under the Kyoto Protocol developed countries have targets and timetables for mitigation but developing countries do not.<sup>85</sup> Differentiation is also present in terms of finance and technology transfer, where developed countries are expected to provide funding and other resources to developing countries in their endeavors to reduce their own emissions as well as adapt to climate change.<sup>86</sup>

It has been suggested that grounds for differentiation between developed and developing countries should include historical responsibility, different levels of economic development and capacities, and differing vulnerabilities. However, countries disagree on which of these fundamental grounds for

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<sup>81</sup> Nakhooda, S. et al (2013).

<sup>82</sup> United Nations (1992a), p.4.

<sup>83</sup> United Nations (1972).

<sup>84</sup> United Nations (1992b).

<sup>85</sup> Halsnæs, K., et al, (2007).

<sup>86</sup> United Nations (2010).

differentiation should take prominence. As a result the nature and extent of differentiation between countries remains “a central point of contestation” in the climate change negotiations.<sup>87</sup>

Developed countries have questioned differentiation for mitigation targets. They argue that all major emitters should be held to binding commitments to take climate action, and that the Convention’s principles are dynamic and should respond to changing geopolitical realities. For example, in 1997 the U.S. Senate sought to condition ratification of the Kyoto Protocol on whether actions by other major emitting countries were mandated.<sup>88</sup> In recent years, the United States Special Envoy for Climate Change, Todd Stern, has elaborated and updated the U.S. position on CBDRRC. He has said the U.S. could not support a new agreement with a “firewall” between developing and developed countries such that all specific obligations to cut emissions are assigned to developed countries. He said “[o]f course we understand that the content of mitigation commitments are at this time appropriately differentiated – developed countries commit to absolute reductions below a baseline, while developing countries commit to reductions on a relative basis. But the character of the commitment must be the same. Not mandatory on one side, voluntary on the other.”<sup>89</sup> The Europeans have acknowledged that the climate regime should take into account “that responsibilities and capabilities are differentiated but evolve over time and that any new agreement should reflect those evolving realities by including a spectrum of commitments in a dynamic way.”<sup>90</sup>

Some developing countries, most notably the major emerging economies, counter that the Convention’s principles require that developed countries lead in the climate change mitigation effort because they are historically responsible for the majority of global greenhouse gas emissions. They also have the greatest capacity to act given their financial and technological resources. The consistent position from these countries is that developed nations have exceeded their share of carbon space, are responsible for climate change and therefore should pay for it.

China has stated repeatedly that developed countries should take the lead in reducing their emissions and provide the means of implementation (support on technology, finance, capacity building) to developing countries so they can mitigate and adapt.<sup>91</sup>

Brazil’ stance is based on the fact that the accumulation of emissions since the Industrial Revolution and so have joined with South Africa, India and China in proposing a carbon budget allocating all greenhouse-gases since the beginning of the industrial revolution in 1850 on an equal per capita basis.<sup>92</sup>

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<sup>87</sup> McInerney-Lankford, Siobhan; Darrow, Mac; Rajamani, Lavanya (2011), p50.

<sup>88</sup> Senate Resolution (1997) Expressing the sense of the Senate regarding the conditions for the United States becoming a signatory to any international agreement on greenhouse gas emissions under the United Nations. S. RES. 98. Washington, DC. United States Senate.

<sup>89</sup> Stern, Todd (2011) Remarks as prepared by Todd Stern, Special Envoy for Climate Change at the MIT Earth Week Colloquium in Boston, April 21, 2011.

<sup>90</sup> Danish Presidency of the European Council (2012) Submission by Denmark and the European Commission on behalf of the European Union and its member states. Copenhagen. Government of Denmark.

<sup>91</sup> Government of China (2012).

<sup>92</sup> BASIC Experts (2011).

India has always played a substantial role in shaping a developing country perspective on equity. It was Indian leadership that originally shaped the principle of CBDRRC from the “common responsibilities” across countries formulation of the IPCC to the notion of “common but differentiated responsibilities” reflecting India’s view on historical responsibility. The Indian position remains consistent that contribution to stocks of greenhouse gas emissions, rather than annual flows of emissions, constitute the appropriate means for assessing responsibility and so the nature of emissions reduction commitments in the UNFCCC. As a result, India continues to press for emissions entitlements to be based on equitable access to global atmospheric space. According to this view there has been a “gross over-occupation of global atmospheric carbon space by the developed nations”, which now potentially undermines the ability of poorer nations to develop.<sup>93</sup> As a consequence a per capita allocation of global sinks that “apportions the entire available sink capacity equally across all individuals on the globe and assigns emissions rights to countries based on their population” is the policy preference advanced by successive Indian governments.<sup>94</sup>

Rather than promoting a race to the top and the type of bold collective action needed to safeguard development, the current approach to equity has become a tug-of-war between countries that are reluctant to do more without assurances that others will also act. Low ambition is not conditioned by the equity dispute alone. Too few of the leading emitters currently view the transition to low carbon development as being aligned with their national, political or economic interests. However, the inability to resolve the equity question exacerbates these problems and as a result we are now on a collision course with environmental integrity and in the midst of political negotiations that are glacial at best.

Assessing whether the nexus between human rights and climate change could be used as one additional tool to resolve the equity dilemma was therefore a key driver of this research and features prominently in the empirical work. This research also sought to make other contributions to raising ambition in climate policy, notably by using human rights thresholds as a means to assess climate vulnerability; deploying human rights mechanisms to build climate resilience; and utilizing a rights-based narrative to build domestic constituencies of political demand in support of aggressive climate action. These aspects of the research are outlined in more detail below.

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<sup>93</sup> BASIC Experts (2011), p.61.

<sup>94</sup> Ibid., p.61.



## Part III: The Approach Setting

*Part III of the capstone presents the theoretical frameworks that have informed this body of research. The theory of public policy agenda setting and shaping of policy alternatives pioneered by John W Kingdon has been the cornerstone of the theory of change. As this research deals with the interface between climate change and human rights there has also been a need to adopt a theory of justice, in this case informed principally by the work of Amartya Sen and John Rawls. These theories are brought together into a consolidated and composite theory of climate justice. All these aspects are addressed in the following sections:*

- *Introduction to the Approach Setting*
- *A theory of change: Urgency, ambition, agendas and alternatives.*
- *A theory of justice: Avoiding manifest injustice(s) and safeguarding the most vulnerable*
- *A theory of climate justice: Operationalizing the nexus between climate change and human rights*

### I. **Introduction to Approach Setting**

The approach setting for this research evolved over time. The nexus between climate change and human rights involves many disciplines ranging from political science and philosophy to law and economics. As a political scientist the author brought disciplinary training and assumptions of how the world works to this task. Colin Hay has written that “political analysis is synonymous with the analysis of the distribution, exercise and consequences of power”.<sup>95</sup> Over the course of this research the author’s point of departure has been that the world is governed by power, whereas those with a legal training might view the world as governed by rules. This philosophical point of departure has been important throughout this investigation as it has led the author to view changing power dynamics as a key outcome of this work rather than the expansion of a body of international laws.

As the research developed, it was initially influenced by the theories of new institutionalism. For example, one important tenet of new institutionalism is that “the density of the existing institutional fabric in any given social or political context renders established practices, processes and tendencies difficult to reform and steer”.<sup>96</sup> This is often referred to as historical institutionalism or “path dependency”. The UNFCCC is a classic example of this as it has proven remarkably difficult to reform principles and practices that though well-intentioned, have actually undermined progress towards the ultimate goal of the Convention. The process of negotiation, which involves too much time for formal presentation of statements, and too little time for constructive and creative dialogue, is problematic and often undermines efforts to achieve climate justice. Moreover, the interpretation and operationalization of the principles of equity and CBD/RRCC seem out of step with the science of climate change.

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<sup>95</sup> Hay, Colin (2002), p.256.

<sup>96</sup> Hay, Colin (2002), p.105.

A second important aspect states that “governance involves creating capable political actors who understand how political institutions work and are able to deal effectively with them”.<sup>97</sup> At any one time there are as many as fifty different issue areas under negotiation within the UNFCCC ranging from the very technical aspects of emissions reductions to the politically contentious issues of climate finance. Successful change agents need a firm grasp of these issues. However, just as importantly, change agents also need a robust understanding of procedural issues to advance their favored agenda items, and sophisticated political antenna in order to build the coalitions necessary to support reform and greater ambition.

The UNFCCC is both resistant to new ways of thinking and also quick to socialize new entrants – whether individuals joining existing delegations or new organizations coming to the process for the first time. This is closely related with theories from new institutionalism focused on socialization which state that “interests and preferences are shaped by institutional arrangements and maintained by institutional processes of socialization and co-optation”.<sup>98</sup> On occasion there seems to be an invisible hand, which determines boundaries and parameters, which in turn constraints the amount of innovation that seeps into the system. This reinforces old ways of working and prevents reform of concepts that have become outdated and even counter-productive. A subset of new institutionalism has emerged in recent years called “constructivist institutionalism”, which stresses the importance of ideas and discourse in institutional design. This sub-field opens a space for innovation and the emergence of new ways of working.<sup>99</sup>

As the empirical and analytical work presented in this research reveals a concerted effort has been made to interrogate and explore the dynamic relationship between the actors and the institutions that combine to create the international climate regime. New institutionalism gives due credit to actors and agency, however it is also clear that parameters to act is set by context and it is “the dynamic relationship between structure and agency” that determines capacity for reform.<sup>100</sup>

This research has concentrated on the ways in which ideas and institutions interface, and the manner in which a human rights based approach to climate change might alter the institutional setting for climate policy and build the capacity of the actors within this regime by equipping them with the tools and narratives of a rights-based approach to climate.

The scholar David Kennedy takes this one step further by arguing that background norms and institutions are more important in global governance than previously thought and that these norms and institutions are led in turn by “experts”.<sup>101</sup> Kennedy argues that the difficulty in driving change is the lack of understanding of what these experts do, how they communicate, and how to bring issues to their

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<sup>97</sup> March, James G and Olsen, Johan, P. (1995), p.28.

<sup>98</sup> Ibid., p.28.

<sup>99</sup> Hay, C (2006).

<sup>100</sup> Hay, Colin (2002), p.254.

<sup>101</sup> Kennedy, David (2005), p.3.

attention in a manner with maximum potential for influence.<sup>102</sup> His central claim is that swaying these experts requires the creation of a vocabulary of arguments that can be broad and compelling enough to appeal to their expertise and sensibilities. He states that experts have developed their own vocabulary of arguments and the successful advocate needs to penetrate this in order to be effective in any change undertaking.<sup>103</sup> He writes that these experts have largely been overlooked as they were thought to inhabit the background in policy making, however in his judgment they have “colonized the foreground” – the place where decisions are made by politicians – and in an increasing spectrum of disciplines are now responsible for shaping how problems are defined, which rise on the decision agenda, and for narrowing the range of policy alternatives.<sup>104</sup>

The body of evidence accumulated through this research has validated these initial assumptions. As a result the published outputs associated with this research have progressively translated the nexus between climate change and human rights into tailored vocabularies, aimed at specific target audiences, and designed to address instrumental and practical challenges faced by specific target audiences (i.e. development practitioners, UNFCCC negotiators, representatives at the UN Human Rights Council, etc...).

These initial approaches were forerunners to the philosophy that became central to the core theory of change in this research, specifically the work of Professor John W. Kingdon, Professor Emeritus of Political Science at the University of Michigan. His best known work is “Agendas, Alternatives, and Public Policies”, first published in 1984 and the recipient of the 1994 Aaron Wildavsky Award for an enduring contribution to the study of public policy. This work is explored in the next section.

## II. **A theory of change: Urgency, ambition, agendas and alternatives**

As James A Thurber argues in his foreword to the Second Edition of *Agenda's, Alternative and Public Policies*, before Kingdon first published his seminal work in 1984, “political scientists did not pay much attention to agenda setting”. Kingdon’s work consequently became an “established theoretical foundation for all post 1984 scholarship on the policymaking process”.<sup>105</sup>

The core of Kingdon’s thesis is that an issue is most likely to achieve public agenda status when public problems, policy alternatives, and political opportunities intersect. He argues that public policymaking can be considered to be a set of processes, including at least (1) the setting of the agenda, (2) the specification of alternatives from which a choice is to be made, (3) an authoritative choice among those specified alternatives, and (4) the implementation of the decision.<sup>106</sup> His work therefore serves to pose a number of important questions:

- First, how do subjects come to the attention of policy experts and decision makers?

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<sup>102</sup> Kennedy, David (2005).

<sup>103</sup> Ibid.

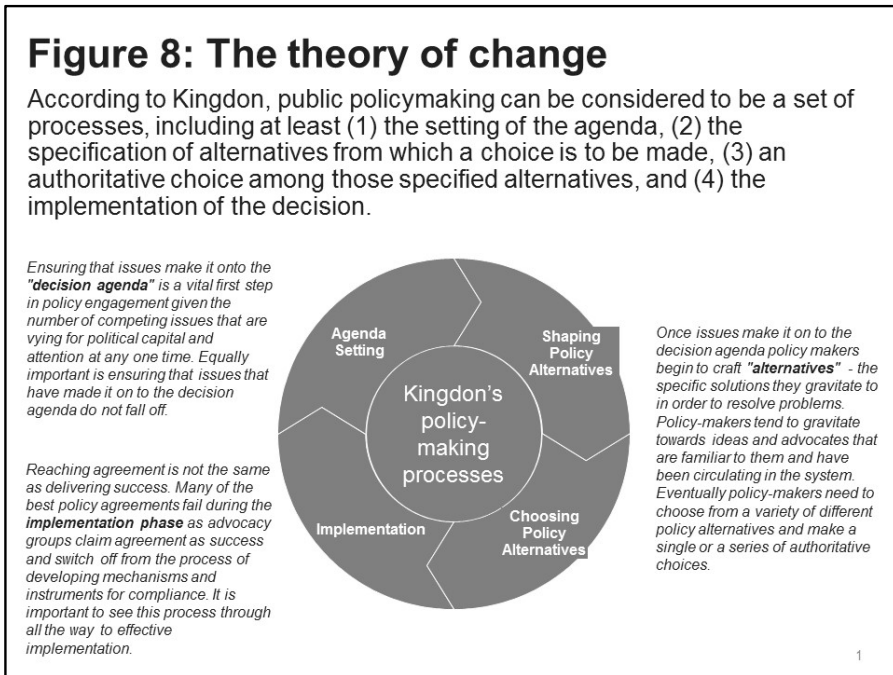
<sup>104</sup> Ibid.

<sup>105</sup> Kingdon, John (2003), p.vii.

<sup>106</sup> Kingdon, John (2003).

- Second, how can one issue rise above others to become prominent on the decision agenda?
- Third, how are the alternatives from which policy makers choose generated?

His answers to these questions provide insightful guidance to those seeking to influence public policy and have provided the theoretical foundations for the analysis of the nexus between climate change and human rights.



Starting with agenda-setting, Kingdon argues that the patterns of public policy are “determined not only by such final decisions as votes in legislatures, or initiatives and vetoes by presidents, but also by the fact that some subjects and proposals emerge in the first place and others are never seriously considered”.<sup>107</sup> Kingdon defines the agenda as the list of subjects or problems to which decision makers are paying some serious attention at any given time. He contends that “out of the set of all conceivable subjects or problems to which officials could be paying attention, they do in fact seriously attend to some rather than others”.<sup>108</sup> So the first priority for advocates is to ensure that their issue is capable of rising above others on the decision agenda. Kingdon suggests three potential routes for this:

<sup>107</sup> Kingdon, John (2003), p.2.

<sup>108</sup> Kingdon, John (2003), p.3.

- First, a crisis or prominent event may catapult an issue to the top of the decision agenda. Kingdon describe these as “focusing events”.<sup>109</sup> Examples of this phenomenon include national security measures suddenly emerging in response to a terrorist attack and new health protocols emerging in response to an infectious disease in West Africa. Superstorm Sandy in the United States and Typhoon Hainan in the Philippines temporarily elevated climate change to the top of the decision agenda in 2012 and 2013 respectively before the media spotlight and the political capital of politicians moved on to other matters.
- A second contributor to governmental agendas and alternatives might be a process of gradual accumulation of knowledge and perspectives among the specialists in a given policy area. The gradual accumulation of a more robust evidence base on climate change catalyzed by the IPCC Assessments is the most tangible illustration in the climate space. It is becoming increasingly difficult for policy makers to ignore the strength of the evidence base or the urgency of the issue as a result of the diligent work conducted by a growing number of scientists across the globe. As Kingdon points out, “it always helps for a problem to be countable”.<sup>110</sup> The science of climate change – manifested through quantifiable assessments of CO<sub>2</sub> in the atmosphere or likely temperature ranges – is now increasingly joined by economic valuations assigning dollar amounts to the huge losses already experienced as a result of climate impacts; and analyses of the human impacts on health and lives caused by a variety of climate events.
- Third, political processes affect the agenda including swings of national mood, vagaries of public opinion, election results, and changes of administration.<sup>111</sup> This has resulted in shifts of policy in positive as well as negative directions with administrations favorable to climate change assuming office in some major economies; and others experiencing a backsliding of policy interventions as previously committed governments are replaced by leadership skeptical of climate action.

As Kingdon points out, just as a problem can rise on the agenda, it can also fade from view.<sup>112</sup> This can be caused by the perception of the problem being resolved or at least pacified. It can also happen if dysfunction and failure become associated with the policy process. Politicians and policy makers do not like to be associated with failure and may choose to invest limited political capital in areas where success is more likely. One way to avoid this is to construct the problem / issue in a way that seems to be relevant over time, and in a manner that deploys Kennedy’s “vocabulary of arguments”, thus infusing the policy process with new and committed constituencies of demand.

These insights on agenda setting have been applied throughout this research. The human dimensions of climate change, and in particular the crises for human systems that result from extreme weather events, drought, floods, and destruction of livelihoods, have been used to catapult climate change higher on the

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<sup>109</sup> Kingdon, John (2003), p.93.

<sup>110</sup> Kingdon, John (2003), p.16-17.

<sup>111</sup> Kingdon, John (2003).

<sup>112</sup> Ibid.

decision agenda. This has served as a complement to the accumulation of scientific knowledge and as become a new addition to the vocabulary of arguments on climate change that had previously been dominated by eco-centric approaches.

Apart from the set of subjects or problems that are on the agenda, Kingdon writes about the importance of policy alternatives. His central claim is that policy makers draw upon alternatives that are already circulating in the system when choosing to tackle a given problem. He argues that out of the set of all conceivable alternatives, officials actually consider some more seriously than others.<sup>113</sup> In this regard he mirrors the famous quote from economist Milton Friedman who wrote “only a crisis - actual or perceived - produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around”.<sup>114</sup> Kingdon claims that the substance of the ideas, as well as the political power of the source of the ideas, are important for moving some subjects and alternatives into positions of prominence.<sup>115</sup> He outlines a number of characteristics that increase the odds of a policy alternative becoming the policy of choice for decision makers:

- *Technical feasibility*: to be seriously considered policymakers believe that a proposal will work if enacted. Without that belief the proposal is not likely to survive to the point of serious consideration.
- *Value acceptability*: proposals that survive in the policy community are compatible with the values of the specialists.
- *Anticipation of future constraints*: some ideas fail to obtain a serious hearing, even among specialists, because their future looks bleak, while others survive because specialists calculate that they would meet these future tests.<sup>116</sup>

The application of these ideas to the nexus between climate change and human rights have also been tested through this research. Kingdon’s criteria have been supplement with three additional tests based on guidance from the climate experts and practitioners interviewed during this research. The final set of characteristics therefore also include:

- *Meaningful*: This means targeting policies that contribute genuine ambition to both emissions reductions and strengthening of adaptive capacity.
- *Plausible*: This means honing in on a theory of change that is logical and likely to deliver success.
- *Feasible*: This means concentrating on policy alternatives that are likely to garner sufficient political support.

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<sup>113</sup> Kingdon, John (2003).

<sup>114</sup> Friedman (2002), p. xiv.

<sup>115</sup> Kingdon, John (2003).

<sup>116</sup> Ibid.

Finally, Kingdon writes about the importance of “policy entrepreneurs” in advancing public policy. These are people in or out of government, in elected or appointed positions, in interest groups or research organizations who are willing to invest the resources, time, energy, reputation, and sometimes money, in the hope of elevating issues on the decision agenda and forcing through their preferred policy alternatives.<sup>117</sup>

The published outputs of this research have sought to apply these lessons and so build the capacity of policy entrepreneurs favorable to urgent and ambitious climate action by providing them with a narrative on climate justice to complement other accounts of climate impacts; and to offer them instruments and approaches drawn from the international human rights framework to equip the climate regime for greater success.

Kingdon’s final contribution is to stress the importance of “policy windows of opportunity”.<sup>118</sup> When problems, policies and the politics converge a moment arrives to make real progress. In the climate space there have been a number of windows over the past decade. One window opened in the late 1980s and closed with the adoption of the Kyoto Protocol in 1997. Another window opened in 2006 with the launch of the Bali Action plan<sup>119</sup> and closed in 2009 with the UNFCCC meeting in Copenhagen.<sup>120</sup> The third great window for international climate policy progress opened in 2011 with the launch of the Durban Platform<sup>121</sup> at a climate summit hosted by South Africa and closes in Paris in December 2015 with the anticipated adoption of a new international climate agreement. Seizing the opportunity provided by this latest window is fundamental to the success or failure of the nexus between climate change and human rights.

### III. **A theory of justice: Avoiding manifest injustice(s) and safeguarding the most vulnerable**

The historian Fritz Stern has stated that the First World War was “the first calamity of the twentieth century, the calamity from which all other calamities sprang”.<sup>122</sup> The weight of science suggests that many of the potential calamities of the 21<sup>st</sup> century including *inter alia* food insecurity, biodiversity and ecosystems loss, conflict and state fragility, health pandemics, chronic water insecurity, and involuntary displacement, will spring from climate change. As a result climate change is more than a scientific or environmental issue, it is first and foremost a human issue with considerable implications on human rights and justice. As a result this research has sought grounding in an appropriate theory of justice to complement the theory of change.

The theories of Amartya Sen have provided the conceptual grounding for the theory of justice applied in this research. In “A Theory of Justice” Sen writes: “a calamity would be a case of injustice only if it could

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<sup>117</sup>Kingdon, John (2003).

<sup>118</sup> Kingdon, John (2003), p.165.

<sup>119</sup> UNFCCC (2007).

<sup>120</sup> UNFCCC (2009).

<sup>121</sup> UNFCCC (2011).

<sup>122</sup> Clark, C (2012), p.xxi.

have been prevented and particularly if those who could have undertaken preventive action had failed to try. Reasoning in some form cannot but be involved in moving from the observation of a tragedy to the diagnosis of injustice".<sup>123</sup> As Part II of this capstone illustrates, climate change is a familiar global phenomenon, rooted in more than a century of scientific understanding and more than two decades of collective global political action. Although some climate impacts are now inevitable, the worst consequences of climate change - particularly those that lie beyond the 2°C threshold – are eminently preventable. Moreover, those with the capacity to take preventative action have avoided or even hindered climate action despite being in possession of the full, unambiguous facts.

Importantly for the study of climate change, Sen illustrates the difference between policy alternatives that inevitably create losers as well as winners, and what he describes as manifest injustices. Essentially he provides a framework for adjudicating between process and outcomes that could be viewed as unfair and manifest injustices that are of a far higher order of magnitude. He writes: "justice is not merely about trying to achieve - or dreaming about achieving - some perfectly just society or social arrangements, but about preventing manifestly severe injustices".<sup>124</sup>

This approach holds some comparisons with John Rawls' theory of justice, and in particular with the so-called "difference principle". The "Difference Principle" regulates inequalities, only permitting inequalities that work to the advantage of the worst-off. The second part of the difference principle states that social and economic inequalities can be tolerated if "they are to be to the greatest benefit of the least advantaged members of society".<sup>125</sup>

Part II outlines some of the inequalities that are now locked into the climate policy regime, notably the increasing demands on developing countries to pursue ambitious GHG emissions reductions at a time when they might otherwise pursue much needed development through the use of cheap fossil fuels. While this state of affairs is undoubtedly unfair, Sen's view of a "manifest injustice", and to an even greater extent Rawls' "difference principle", illustrate that this is the type of inequality that ought to be tolerated if only to avoid the greater and manifest injustice of breaching 2°C and the impacts that would entail for vulnerable populations across the globe.

Sen's theory of justice also allows for alignment with Kingdon's theory of change because he is adamant that justice must be concerned with the shaping of policy alternatives and not just a theoretical exercise in imagining a perfect world. He writes: "a theory of justice must have something to say about the choices that are actually on offer, and not just keep us engrossed in an imagined and implausible world of unbeatable magnificence".<sup>126</sup> This view has inspired this research allowing a framework to critically assess whether policy alternatives emerging from the UNFCCC advance the cause of justice for vulnerable populations.

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<sup>123</sup> Sen, Amartya (2009), p.4.

<sup>124</sup> Sen, Amartya (2009), p.21.

<sup>125</sup> Rawls, J. (1971).

<sup>126</sup> Sen, Amartya (2009), p.106.



It is worth noting that the insights harvested through this research validate Sen's assumptions and their relevance to climate change. So how do we advance this theory of justice? Sen also has ideas for this.

In his landmark work "Development as Freedom" Amartya Sen states that freedom is the primary end and the principal means of development.<sup>127</sup> This research began with a similar assumption, namely that the strengthened human rights should be the primary end of climate change interventions and that strengthening human rights, particularly procedural rights, was the principal means to get there. The research validated the first part of this assumption. The evidence base does indeed suggest that strengthened human rights should be the benchmark of success for assessing the quality and impact of climate policy.

It is noticeable that Amartya Sen has a similar understanding of the role of institutions in the context of securing justice as prescribed by new institutionalism. He argues that individual agency is central to addressing deprivations, however the freedom of agency held by individuals is inescapably qualified and constrained by the social, political and economic opportunities that are available.<sup>128</sup> This is certainly true in the context of climate policy. The contours of the new international agreement scheduled for adoption in December 2015 are already in place, indeed some might argue those contours have been evident for most of the past decade. As a consequence, the capacity for creative agency to significantly alter the emerging institutional settlement is limited.

Sen contends that development consists of the removal of various types of "unfreedoms" that leave people with little choice and opportunity of exercising their reasoned agency. The removal of such "unfreedoms" is constitutive of development.<sup>129</sup> The threat of climate change, which hangs over the human rights of marginalized and vulnerable populations across the globe is a powerful "unfreedoms" as it undermines choice and often removes agency. In addition, Sen argues that development can be seen as a process of expanding the real freedoms that people enjoy. This not only involves expanding political and civil rights but also improving social arrangements such as education, healthcare, financial services, etc..<sup>130</sup> The results of this research support this argument in the context of climate change. Enhancing resilience to climate impacts is not just achieved through building infrastructure such as flood defenses. A growing evidence base points to expanding human rights – both procedural and substantive – contribute enormously particularly to those constituencies such as women, indigenous peoples and the urban poor who suffer disproportionately from climate related events and are lacking in adaptive capacity as a result of constraining societal norms.

Finally, Sen also have views on which branch of human rights is best effective in pursuing justice. Without dismissing the importance of the legal branch, he advocates a broader use for a rights-based approach writing: "the implementation of human rights can go well beyond legislation, and a theory of human rights cannot be sensibly confined within the juridical model in which it is frequently incarcerated. For example

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<sup>127</sup> Sen, Amartya (2000).

<sup>128</sup> Sen, Amartya (2000).

<sup>129</sup> Sen, Amartya (2000).

<sup>130</sup> Sen, Amartya (2000).

public recognition and agitation can be part of the obligations – often imperfect – generated by the acknowledgement of human rights. Also, some recognized human rights are not ideally legislated, but are better promoted through other means, including public discussion, appraisal and advocacy”.<sup>131</sup>

There is one area where the results of this analysis diverge from Sen’s assumptions. While human rights are appropriate as the principal ends for climate policy the evidence does not support the notion that human rights ought to be the principal means. Instead the evidence suggests a broad and comprehensive suite of interventions that include rights but must also include interventions spanning the full spectrum of public policy, technological development and deployment, appropriate financing, and bold collective action by all stakeholders including the private sector.

#### **IV. A theory of climate justice: Operationalizing the nexus between climate change and human rights**

This research has sought to bring together the theories of change and justice outlined above into a unified theory of climate justice, which essentially operationalizes the nexus between climate change and human rights, and over time the term “climate justice” has become the shorthand used to describe this nexus. The theory of climate justice that emerges has two reinforcing pillars that can build on each other to maximize impact overtime.

The first pillar concentrates on urgent and ambitious mitigation of greenhouse gas emissions consistent with holding global temperatures below 2°C above pre-industrial levels. Climate justice cannot be achieved in a world where vital socio-ecological thresholds are breached impacting the realization of a range of substantive rights and undermining the development aspirations of vulnerable and marginalized communities.

The second pillar focuses on enhancing adaptive capacity to respond to the climate impacts already locked into the system as a result of historical emissions and emissions trends Anticipated over the coming decades. Social development interventions and the strengthening of human rights can enable communities most vulnerable to climate-related events to manage the shocks, rebound, and continue on a progressive pathway to sustainable development.

Both pillars requires “voice, agency and empowerment” of communities most directly affected by climate change to provide them with access to information, decision making and justice. This in turn enables them to account for their experience in policy venues, advocate for their own interests, and ensure that policy alternatives are shaped in a way that enhances their resilience.

To achieve this vision of climate justice, the instrumental benefits of the nexus between climate change and human rights ought to be deployed in order to generate urgency around the climate challenge; build a coalition in support of climate action; elevate climate on the political decision agenda; shape policy

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<sup>131</sup> Sen, A. (2004), p.319-320.

alternatives that advance climate stabilization and avoid negative socio-ecological impacts; and catalyze effective implementation of climate policy over time.

Using human rights to improve analysis of drivers, impacts and thresholds is one tangible way to operationalize this nexus. Uvin describes human rights as “heuristic devices” – experienced-based techniques that help in problem solving, learning and discovery.<sup>132</sup> In the context of climate change human rights can help alter diagnosis by focusing attention on human and social drivers, impacts and thresholds. They can also help us understand the importance of sensitivity and adaptive capacity as well as exposure to risk as fundamental drivers of vulnerability. Moreover, as the International Council for Human Rights Policy (ICHRP) has pointed out, while a cost/benefit analysis might conclude that hardships in one place can be set off against benefits in another, “such calculations are impermissible for human rights, which view each individual harm on its own terms”.<sup>133</sup> As a result, thresholds identified using a human rights-based approach are more likely to focus on the most vulnerable and orient policy interventions in their favor.

Human rights can also be deployed to enhance climate governance and improve both consultation with and participation of frontline communities. A human rights approach insists on providing voice for the most vulnerable and provides methodologies for ensuring the participation of, and consultation with, key stakeholders in the formulation of climate change and development strategies. Voice and access provide opportunities to vulnerable communities to both set the agenda and shape alternatives. Improving governance may also help to address what Darrow and Amparo describe as asymmetries of power and the elite capture<sup>134</sup> and contribute to breaking down what ICHRP have described as “disciplinary path dependency”, whereby the study and response to climate change is guided by a narrow number of disciplines, perspectives and interests that often undermines global institutions and regimes.<sup>135</sup>

Human rights may also assist the process of broadening the terms of the climate change dialogue. John Knox has argued that treating human rights in a moral sense can draw attention to the effects of climate change on particular communities.<sup>136</sup> Appealing to the court of public opinion with a narrative that resonates with them – a broader vocabulary of arguments to borrow Kennedy’s phrase – can help to create and mobilize new constituencies of demand in support of climate action.

These tangible and instrumental benefits of the nexus between climate change and human rights are explored in more detail in my analytical and empirical work presented in Part V of this capstone.

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<sup>132</sup> Uvin, P (2004).

<sup>133</sup> International Council on Human Rights Policy (2008), p.20.

<sup>134</sup> Darrow, M. and Amparo T (2005).

<sup>135</sup> International Council on Human Rights Policy (2008).

<sup>136</sup> Knox, J (2009).

## Part IV: Research Design and Methodology

*Part IV of the capstone provides an explanation of the research design and methodology. These aspects are addressed in the following sections:*

- *Introduction to the research design and methodology*
- *Research characteristics and methods*

### I. **Introduction to the research design and methodology**

This research was initiated with a view to describe, evaluate, compare and explain the global, complex and interrelated nexus between climate change and human rights.

The author's own experience as both participant and observer in the shaping of international climate policy provided an initial platform to *describe* international policy norms as they relate to climate change and through this surface key issues and dynamics that contribute to success and failure.

In addition, there was a desire to evaluate the absolute and relative quality of the international climate policy regime as it relates to its overall objective of stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

Moreover, there was a goal to correlate the relationship between climate change and human rights and to investigate whether and how they interface with each other. The starting assumption was that climate change undermined the realization of rights and that a rights-based approach to climate change could strengthen climate resilience, however at the point of departure there was a lack of a convincing evidence base and a need for a robust methodology to guide the investigation.

Finally, there was an intent to explain the complex dynamics – scientific, socio-ecological, political, economic, and cultural that influence in both positive and negative ways collective efforts to address climate change.

Beyond these purely research and investigative aims, an overriding and practical objective was to identify a transformative political strategy to enhance urgency and ambition in international climate policy fora with the specific hope of advancing the interests of vulnerable and marginalized populations across the globe who had hitherto been failed by almost two decades of intergovernmental negotiations. As a result, a number of research design types have been used in this research.<sup>137</sup>

An historical approach to research design has been used to inform understanding of present trends and an assessment of likely future trends through a comprehensive and accurate understanding of the past. Understanding of the climate system is more than one hundred and fifty years old. Reports of

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<sup>137</sup> For an excellent and concise overview of how types of research design please refer to Walliman, N (2011).

anthropogenic climate impacts are almost thirty years old. And global efforts to tackle climate change were formally initiated more than two decades ago in 1992. As a result there is a great deal of historical data to draw upon to inform present-day evaluation of the success or failure of climate policy interventions.

Descriptive research has been used, specifically in the use of observation as a means of collecting data. As a long-standing participant in the climate policy regime the author has both personal experiences that were used to guide the direction of this research and an extended personal network running to thousands of climate, development and human rights practitioners, some of whom have been working on the climate negotiations from the very beginning to inform the work. As a result the research outputs combine primary data gleaned from the author's own experience and that of others through interviews, and focus groups.

Correlational research featured prominently at the outset of this work as early investigations explored the interface between human rights and climate change and specifically the causal relationship between the two. The application of this design type validated the theory that vulnerability to climate change was conditioned not just by exposure to a climate risk but by sensitivity and lack of adaptive capacity often caused by intersecting inequalities and the absence of human rights. Climate resilience correlates highly with the application of human rights, particularly procedural rights such as access to information, decision making and justice.

From the outset this research was designed to be reciprocal and iterative. As the nexus between climate change and human rights was embryonic when this work commenced there was a need to collect information, deepen understanding of the issue in a step-by-step way, and consequently revise needs for further data and analysis as the work progressed. There continues to be a need for this approach as while the depth of knowledge on how climate change undermines the realization of rights is now substantial, significant gaps remain in understanding the full extent of the instrumental value of a rights-based approach.

The research philosophy underpinning this work has been heavily influenced by relativism. This school maintains that the world is experienced personally through our own actions, perceptions and direct involvement and that our behavior is significantly influenced by our own points of departure and values. The relativist school further maintains that researchers are not neutral observers but integral parts of society. As distinct from natural scientists who maintain a distance and impartiality from their subjects, researchers imbued with a relativist philosophy contend that the researcher observes from within the system he or she is studying and has a direct stake in the subject of investigation. Relativists do not ignore what is subjective and recognize that values play a critical role in human behavior just as facts do – and sometimes more so. Finally, the relativist realizes that his or her investigation may not lead to universal laws but may instead surface new perspectives, interpret existing ones, and provide a distinct lens on the phenomena being investigated.<sup>138</sup>

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<sup>138</sup> Krausz, Michael (2010).

As detailed in Part III of this capstone, this analysis of the nexus between human rights and climate change was informed by a specific theory of justice and a point of departure influenced by many years as a climate policy practitioner working with vulnerable communities. The research has been designed and executed while the author of the research worked with the Foreign Ministry of the Government of the Maldives, the World Bank, and the World Resources Institute. As a consequence the author has had a professional stake in the outcomes of the research in that performance as a policy practitioner improved as the research harvested new and actionable insights. The relativist philosophy further appealed as this research is a hybrid between factual / objective issues and preferences / subjective issues. The study of climate change is a scientific endeavor, heavily dependent on physics, chemistry and other natural sciences. However, the responses to climate change are heavily subjective and dependent on preferences including personal or national predilections (i.e. for market-based mechanisms over command and control ones); is subject to prioritization (for example prioritizing short-term profit over long-term security); political calculations (i.e. whether voters or shareholders are likely to look on climate action favorably or unfavorably) and so on. As a consequence it is important for the researcher – particularly one who is seeking to learn about transformational political strategies – to be able to look at both facts and preferences and understand both.

## ***II. Research characteristics and methods***

The six articles submitted for evaluation comprise 143 pages of work and contain 545 citations. The bibliography for this capstone alone runs to 9 pages. Five distinct focus groups convened between 2012 and 2014 featured 151 participants, providing input to the research based on semi-structured interviews. And over the course of the past eight years the author has organized, participated in, and spoken at countless workshops and conferences on five continents. A mixed methods approach was used to conduct this research with much of the work leaning towards qualitative rather than quantitative methods.

The quantitative data used is mostly derived from secondary sources and deals predominantly with climate science (i.e. temperature rises, concentrations of GHGs in the atmosphere, etc...); socio-ecological impacts (i.e. quantitative impacts on ecosystems, biodiversity, and on human systems related to food, poverty, health, etc...); and the real world impacts of climate policies (i.e. changes in emissions trajectory based on governmental climate action, changes in availability of low-carbon finance based on mobilized public sector funding, etc...).

The bulk of the analysis has been qualitative in nature, derived from both primary and secondary sources. Three basic techniques of primary data collection were used, namely observation, participation and interrogation (interviews and focus groups). While a substantial volume of written sources spanning several disciplines was used as secondary sources.<sup>139</sup> The research adhered to the theory that qualitative research ought to take place in the natural setting, enabling the researcher to be involved in the actual

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<sup>139</sup> Blaxter, L., Hughes, C., and Tight, M (2010).

experiences of participants.<sup>140</sup> The author was provided with privileged access to the process and participants as well as the ideas that were shaping the emerging nexus between climate change and human rights. Through this participation, the author has personally crafted a number of the political texts that have shaped the agenda on climate and human rights and subsequently has written policy alternatives that have been adopted by governments and are now being implemented.

### *Primary data sources*

- *Interrogation*: the first method, consistently used was semi-structured interviews conducted bilaterally in face-to-face form and over telephone; and multilaterally through focus groups. The semi-structured method was used in order to allow for both standardized questions (to ensure a degree of consistency) and open type questions to provide the freedom and flexibility to interviewees to give genuine and unhindered insights. The questions were evolved over time as this was a reciprocal and iterative process with information / data needs changing over time depending on the specific research issue. Many experts were interviewed on several occasions across multiple years. On occasion the interviews were conducted under the Chatham House Rule to allow interviewees to speak off the record. In total five focus groups were conducted in Bonn (June 2012), Bangkok (September 2012), Doha (December 2012), Geneva (February 2014), and Washington, DC (July 2014).
- *Observation*: Observation has been a vital research method and has benefitted from privileged access to key policy fora. This has included being an observer to formal meetings and negotiations of the UNFCCC and Human Rights Council as well as being an observer at workshops, conferences, and off-the-record dialogues involving key thought leaders and policy makers. Many of these have featured decision-makers at the highest levels of government with real influence on the future shape of the climate regime.
- *Participation*: Data has been derived from the author's own active participation in the international climate regime. The author has negotiated and drafted text for UN Resolutions and Decisions adopted by both the UN Human Rights Council and the UNFCCC.

One of the key challenges in collecting primary data for this research was ensuring an adequate representative sampling when conducting interviews and organizing focus groups. In both cases the work began by identifying the target population, specifically the universe of delegates participating in the annual Conference of the Parties to the UNFCCC and the annual Human Rights Council Session, which takes place in Geneva. From here a sampling frame was identified, consisting of at least one representative from the 198 Parties to the UNFCCC and a cross section of opinion from civil society actors active on climate justice. This latter part was achieved by conducting a landscape analysis of organizations who register to participate at the annual COP. The final step was to select a manageable number of participants to invite for interview and to participate in focus groups covering a broad range of geographies, schools of thought, and viewpoints on climate justice.

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<sup>140</sup> Creswell, J (2003).

### *Secondary data sources*

This research draws upon a significant volume of documentary sources. Some of these can also be considered as primary sources but have been grouped together under this heading for ease of reference. The various documentary types can be divided into the following categories:

- Scientific literature covering climate science and the socio-ecological impacts of climate change. The most notable example of this being more than 4000 pages of peer reviewed science assessments published by the IPCC as part of the Fifth Assessment Report published in 2013 and 2014. In addition, the literature chronicling the degradation of biodiversity and ecosystems services (marine and terrestrial) produced by international organizations, research institutes, civil society and academia was reviewed and assessed.
- Development literature covering the financial and economic aspects of climate change. The most notable illustrations here were the landmark Stern Report from 2006; successive World Development Reports produced by the World Bank; the Human Development Report produced annually by UNDP; and most recently the New Climate Economy Report produced by the New Climate Economy Commission.
- Climate policy literature covering the history of developments in the international climate regime as well as policy development in key economies such as the United States, the European Union and China. The analysis of literature related to climate policy spans two decades and stretches from the UNFCCC, which was negotiated over a three year period culminating in 1992; up to and including negotiations texts leading to a new climate agreement to be signed in Paris in December 2015.
- Human rights literature covering the history of the international human rights regime and crucially the initial interface between environment and human rights and the emerging nexus between climate change and rights. This has involved analyzing texts produced by scholars, civil society and international organizations such as the Office of the High Commissioner for Human Rights. It has further necessitated a need to understand legal norms and vocabularies to supplement my training in political science and development in order to understand and engage with the legal dimensions of this research.
- Literature covering issues of justice and equity to build an understanding of how these are constructed from a philosophical standpoint as well as how they are implemented in practice. This has informed the theory of justice, a critical point of departure for this research, as well as the critique of the principle of CBDRRRC practiced within the UNFCCC.
- Literature dealing with communications, behavioral change and societal change. The thesis has involved examining the potential of the climate justice narrative as a moral spur to action and an argument that could build a greater constituency of demand for climate policy. Literature focusing on the use of storytelling and the value of moral and ethical arguments in prompting major social change has therefore been reviewed and absorbed into the work.



- Research theory and methods documentary sources to inform the way in which the evidence base for this work has been constructed in a manner that is reciprocal and iterative.
- Survey data to understand changing perceptions on climate change more broadly and specifically the shifting viewpoints on the nexus between climate change and human rights. Official published documents from UN bodies.

### ***III. Conclusion***

Creswell outlines a process consisting of a number of sequenced steps to check the accuracy of research findings when conducting qualitative research. These steps have been followed to ensure a robust evidence base for this research.<sup>141</sup> First, an effort has been made to triangulate by using evidence from different data sources, perspectives, and methods to confirm my findings. Second, member checking has been used when conducting interviews and focus groups by making the findings available to participants and interviewees to ensure that conclusions are accurate and consistent. Third, efforts have been made to clarify the bias in the work by being scrupulously transparent and consistent with the author's own point of departure, the theory of justice that underpins the investigation, and the author's role as both participant and researcher. Fourth, negative and/or discrepant information has been used and published. The views of both proponents and opponents of the nexus between climate change and human rights have been analyzed in detail and the research has been explicit in communicating that when it comes to issues of justice and views on policies all views are both legitimate and contestable. Fifth, the author has spent prolonged time in the field, in this case the negotiating halls of the Human Rights Council and UNFCCC. And finally, the use of peer debriefing and review has been vital to ensuring accurate inputs and actionable outcomes to this research. Each of the articles submitted as part of the empirical and analytical work has been extensively peer reviewed both formally and informally. Informal review took place during the drafting of the articles and was conducted by respected colleagues and peers. Formal review was subsequently conducted by peers – some of which were known to me with others participating in a blind peer review.

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<sup>141</sup> Creswell, J (2003).

## Part V: Analytical and Empirical Work

*Part V of the capstone presents the analytical and empirical work constructed during this research by providing an overview of the six articles submitted for evaluation. This part is therefore structured based on the following sections:*

- *Introduction to analytical and empirical work*
- *Article 1: Cameron, E (2009) **Small Island Developing States at the Forefront of Global Climate Change**. In Starke, Linda ed. (2009) **2009 State of the World: Into A Warming World**. Worldwatch Institute. Washington, DC.*
- *Article 2: Cameron, E (2009b) **The Human Dimension of Global Climate Change**. In **West Northwest Journal of Environmental Law and Policy**. Vol. 15, No. 1, pp1-15. UC Hastings, San Francisco.*
- *Article 3: Cameron, E (2010) **Human Rights and Climate Change: Moving from an intrinsic to an instrumental approach**. In **Georgia Journal of International and Comparative Law**, Volume 38, Number 3, Spring 2010, pp673-716. University of Georgia Law School. Athens, Georgia.*
- *Article 4: Cameron, E (2011) **Development, climate change and human rights: From the margins to the mainstream? Social Development Working Papers**. Paper No. 123/February 2011. The World Bank. Washington, DC.*
- *Article 5: Cameron, E and Limon, M (2012) **Restoring the Climate by Realizing Rights: The Role of the International Human Rights System**. In **Review of European Community & International Environmental Law** 21 (3) 2012, pp2014-219. Blackwell Publishing Ltd. Oxford.*
- *Article 6: Cameron, E, Shine, T. and Bevins, W. (2013) **Climate Justice: Equity and Justice Informing a New Climate Agreement**. **World Resources Institute Working Paper Series**. World Resources Institute, Washington DC and Mary Robinson Foundation Climate Justice, Dublin.*
- *Immediate and long-term impacts of the article*

### I. **Introduction to analytical and empirical work**

The articles presented in this Part of the capstone were prepared over a six-year period, and together address different but complementary ways in which human rights can aid agenda setting, the generation of policy alternatives, and drive greater ambition in public policy to address the socio-ecological implications of climate change.

Each article has been published in reputable and widely disseminated publication, and each has been subjected to extensive peer review. As a body of work, the articles have been constructed using a mixed methods approach including comprehensive literature review; expert interviews with leading thinkers in the fields of climate change and human rights; and on occasion, focus groups.

For each article referred to in this capstone the following information is provided:

- A synopsis of the purpose, key lines of argument, methodology, and scope.
- An account of the rationale for each article, with particular emphasis on the timing, audience, and influence strategy; and an explanation for how it relates to the overall PhD thesis and why it has been selected for submission.

A concluding section provides details on the immediate and long-term impacts of the article.

These articles are all very clear about both the potential and limitations of employing a human rights-based approach to climate change. For example, the assessment reveals that a purely legal approach to this nexus has potentially the greatest impact but also the most significant hurdles.

## II. **Article 1:**

Cameron, Edward (2009) *Small Island Developing States at the Forefront of Global Climate Change*. In Starke, Linda ed. (2009) **2009 State of the World: Into A Warming World**. Worldwatch Institute. Washington, DC.

### *Synopsis:*

This article was formally published on 12<sup>th</sup> January 2009; however the thinking that underpins this work commenced in March 2007, while the actual writing of this piece took place in summer 2008.

The article presents the differentiated and asymmetrical vulnerability of Small Island Developing States (SIDS) both in terms of their exposure to climate change impacts and also their relative lack of political influence within global climate change negotiations. This lack of influence translates into heightened vulnerability as it undermines the capacity of the SIDS' to catalyze sufficient international political will to address climate change with the needed urgency and ambition. In addition, the article provides a specific illustration of both climate impacts and climate action in the SIDS through an account of both vulnerability and adaptation measures in the Maldives. Vulnerability is presented across timescales including the short, medium, and long-term and detail on one particularly innovative method to build resilience is provided. The political strategy of the Alliance of Small Island States (AOSIS)<sup>142</sup> entitled "no island left behind", is outlined as is the principal policy objective of holding global mean temperature rises below 2°C above preindustrial levels. And finally, the "Human Dimensions of Climate Change" strategy pioneered by the government of the Maldives is described. This was the first state-led initiative to establish a direct link between climate change and human rights and advocate a human rights-based approach to climate policy.

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<sup>142</sup> The Alliance of Small Island States (AOSIS) is an intergovernmental organization of low-lying coastal and small island countries. Established in 1990, the main purpose of the alliance is to consolidate the voices of Small Island Developing States (SIDS) to address climate change. The organization's persistence in advocating the most urgent and ambitious climate actions has earned it the informal title of "Conscience of the Convention", a reference to its moral authority within the United Nations Framework Convention on Climate Change (UNFCCC). Today AOSIS has 39 members, of which 37 are members of the United Nations and 5 observers from all around the world. For more information visit <http://aosis.org/>

This article featured in the Worldwatch Institute's flagship publication titled "State of the World". Published since 1984, this yearly examination of sustainability issues is a must-read resource for students, journalists, policymakers, and sustainable development practitioners. The book has been published in 36 languages, and has authoritatively assessed issues ranging from population, energy, and agriculture to materials use, health, and trade policy. The 2009 edition titled "Into a Warming World" collects expertise from 47 climate professionals to examine strategies for mitigation and adaptation and presents case studies from communities at the frontline of climate change around the world.

The piece was subjected to a rigorous peer review process with an internal review conducted by Chris Flavin (the Worldwatch Institute's President at the time); Bob Engelman, Michael Renner and Janet Sawin (each serving as co-directors of the State of the World Report in 2009); Hilary French (Director of Programs); and Linda Starke (Editor of the book from 1984 through 2013). In addition, this edition benefited from external review from a distinguished international panel of fifty two climate experts<sup>143</sup>.

The content is based on the author's professional experience working at the Ministry of Foreign Affairs of the Maldives. The author had been responsible for developing the Ministry's climate change strategy and served as one of a number Maldives' diplomats engaged in the preparation of the climate negotiating strategy for the AOSIS. In addition, the author co-designed and co-led the "human dimensions of climate change" program, the first state-led initiative which sought to link human rights and climate change in both the UNFCCC and the UNHRC. This article also draws on a comprehensive literature review of 1) the science of climate change, 2) the unique vulnerabilities of small island developing nations, and 3) the steps taken in the Maldives to strengthen adaptive capacity and build resilience.

This article does not systematically assess the ways in which climate change impacts could undermine the realization of rights, nor the ways in which human rights could build climate resilience if properly implemented. These facets were beyond the scope of this initial paper and are addressed in subsequent analytical and empirical work (see below).

#### *Rationale and selection:*

This article was inspired by series of parallel initiatives pursued by other communities at the frontline of global climate change. In particular, the work conducted by Earthjustice and CIEL in support of the Inuit population of the United States and Canada, which led to a petition before the Inter-American Commission on Human Rights provided other frontline communities with motivation to pursue a human rights-based approach to tackling climate change.<sup>144</sup> Moreover, the US Supreme Court case

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<sup>143</sup> This included *inter alia* Malte Meinshausen, Meike Andersson, Beto Borges, Ruth DeFries, Svetlana Edmeades, Myles Fisher, Katherine Hamilton, Celia Harvey, Willem Janssen, Andrew Jarvis, Rattan Lal, Anna Lappe, Vanessa Meadu, Peter A. Minang, David Molden, Paulo Moutinho, Danielle Nierenberg, Thomas Oberthür, Nora Ourabah, Molly Phemister, Al Rotz, Kendra Sand, Seth Shames, Kathy Soder, Edgar DeMeo, Kurt Yeager, Tom Crain, Wolfram Krewitt, Junfeng Li, Robert Pratt, Wilson Rickerson, Wanxing Wang, Tim Forsyth, Tom Athanasiou, Christoph Bals, Alan Miller., Neil Leary, Marek K. Kolodziej, Kathryn L. Schu, Ashley Clark, Dolan Chatterjee, Nick Mabey Renske Mackor, Steve Rivkin, Stephen O. Andersen, Ana Maria Kleymeyer, Sarah Knutson, Matthew Stilwell, Xiaopu Sun, Alexandra Viets, Larry Kohler and Peter Poschen. The State of the World Report is available for download at <http://www.worldwatch.org/bookstore/publication/state-world-2009-warming-world>

<sup>144</sup> Gordon, Jessica. (2007).

“Massachusetts versus EPA” from 2007, in which twelve states brought suit against the EPA to force that federal agency to regulate carbon dioxide and other GHGs as pollutants<sup>145</sup>, spurred many frontline communities to consider pursuing legal approaches as complementary strategies to their ongoing policy and political work at the international level.

This article was the first formal output of this research and therefore the first attempt to present a conceptual link between climate change and human rights. Previously, the assumptions and expectations supporting this thesis had been dispersed in a series of written materials including *inter alia* internal strategy documents prepared for the government of the Maldives; speeches presented by senior Maldives government officials including the President<sup>146</sup>; Declarations adopted by a subset of SIDS<sup>147</sup>; submissions to the Office of the United Nations High Commissioner for Human Rights<sup>148</sup>; and internal briefings for World Bank staff. This was the first attempt to bring the thinking together in an academic context.

This article was the first attempt to capture the unique vulnerability of small island developing states and the need to hold global temperature rises below 2°C above pre-industrial levels in order to safeguard their long-term sustainability. This was also the first attempt to advocate protection of the most vulnerable as being the key criteria to measure political progress in the climate negotiations. While this article focuses on small island developing states, subsequent articles would look at other vulnerable groups including women, indigenous peoples and the urban poor. Previous benchmarks of political progress focused either on the global climate system or on ecological thresholds such as loss of biodiversity and ecosystem services. The decision to hone in on particularly vulnerable groups is a concrete illustration of the application of the theory of justice underpinning this research.

This is the first article in which policy alternatives informed by a rights-based approach are presented. In particular an analysis is provided of how a rights-based approach can help improve analysis of the human impacts of climate change by linking it to realizing more than 50 international human rights laws, such as the right to life, health, and an adequate standard of living. Moreover, the article presents a case that a rights-based approach replaces policy preferences with legal obligations and turns the communities most vulnerable to climate change from passive observers of climate negotiations into rights holders. In addition, this article begins the process of reflecting on the power of the rights narrative as a tool for agenda setting. Specifically, the article points to the original momentum to create a UN approach to climate policy based on moral and ethical arguments advanced by members of AOSIS in the early 1990’s. This had led to small island states being called the “conscience of the Convention” and the underlying thesis is that the Convention process needed to discover its moral conscience once more through a rights-based argument<sup>149</sup>

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<sup>145</sup> Massachusetts et al versus Environmental Protection Agency et al (2007).

<sup>146</sup> Information on a number of these speeches is available from the Ministry of Foreign Affairs of the Maldives at: [http://www.foreign.gov.mv/v3/?p=menu\\_item&sub\\_id=50&submenu=Human%20Rights%20and%20Climate%20Change](http://www.foreign.gov.mv/v3/?p=menu_item&sub_id=50&submenu=Human%20Rights%20and%20Climate%20Change). A selection of the speeches made by the then Foreign Minister is available from the Ministry at: <http://www.foreign.gov.mv/v3/?p=speech&view=all>

<sup>147</sup> The Male’ Declaration on the Human Dimension of Global Climate Change available at: [http://www.ciel.org/Publications/Male\\_Declaration\\_Nov07.pdf](http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf)

<sup>148</sup> Maldives Submission under Resolution HRC 7/23 - FINAL -- 25 September 2008 available at: [http://www.ohchr.org/Documents/Issues/ClimateChange/Submissions/Maldives\\_Submission.pdf](http://www.ohchr.org/Documents/Issues/ClimateChange/Submissions/Maldives_Submission.pdf)

<sup>149</sup> Cameron (2009).

III. **Article 2:**

Cameron, Edward (2009b) *The Human Dimension of Global Climate Change*. In **West Northwest Journal of Environmental Law and Policy**. Vol. 15, No. 1, pp1-15. UC Hastings, San Francisco.

*Synopsis:*

This article was published in the Winter Volume of the “West-Northwest Journal of Environmental Law and Policy” (WNW) in 2009. Published by the University of California Hastings College of Law, this is the first regional environmental law journal of California and the Pacific Northwest. In addition to traditional legal scholarship, West-Northwest publishes articles by policy analysts and researchers from the fields of economics, social sciences, anthropology, regional planning, engineering, and biological/earth sciences. WNW strives to publish high quality legal and policy articles related to the West and-Northwest region of the United States through a rigorous review process. Articles go through multiple stages of review. A staff editor checks every fact and source cited in an article. Several editors review each article for accuracy, content, and substance before publication.

The content was prepared during the spring of 2009 in preparation for the “Three Degrees Conference”, which took place in Seattle, Washington on 28<sup>th</sup> and 29<sup>th</sup> May 2009. This conference brought together leading thinkers from around the globe to discuss the relationship between climate change and human rights.

The article provides a summary of the key findings of the Fourth Assessment Report (AR4) of IPCC. Released in 2007, the AR4 was the most comprehensive analysis of both climate science and climate impacts prepared up to that date (it has since been surpassed by the publication of the Fifth Assessment Report in 2013 and 2014). The headline conclusion in AR4 was that climate change was unequivocal, accelerating, and very likely human induced<sup>150</sup>. This leads to a comprehensive assessment of the variety of human impacts resulting from climate change including: reduced agricultural productivity and increased hunger and malnutrition; heightened water insecurity; enhanced exposure to extreme weather events threatening vital infrastructure, public services, and settlements; collapsed ecosystems; amplified health risk caused by vector-borne and water-borne diseases; and increased climate-induced displacement and involuntary migration. I further describe the distribution of impacts of climate change – the ways in which the poor and marginalized are differentially vulnerable to climate impacts as they lack vital adaptive capacity. I define adaptive capacity as requiring financial, human, knowledge and governance resources.

The article further offers a critique of existing policy alternatives designed to reduce emissions, enhance adaptive capacity, fund the transition to a low carbon economy and develop and transfer low carbon technologies with a particular focus on the so-called “Bali Action Plan”, the framework for establishing a new climate agreement that was agreed in Bali in 2007 but subsequently ended in disappointment at the

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<sup>150</sup> IPCC (2007).

Copenhagen climate summit in 2009<sup>151</sup>. The article presents additional policy alternatives that could work to establish a rights-based approach to climate change including those efforts pursued by other academics and by vulnerable communities through a variety of policy venues.

*Rationale and selection:*

This article was prepared during the critical year prior to the Copenhagen climate summit in 2009, which had been billed as the signature date and location for a new international legally binding climate treaty. As a result, this article is best seen as a product of its time and a contribution to a wider conversation, specifically with the goal of encouraging urgent and ambitious action on climate and to explore ways in which inserting a human dimension could facilitate this goal. By early 2009, there was already deep disappointment with the pace and progress of negotiations under the United Nations Framework Convention on Climate Change; and growing skepticism regarding the capacity of the international community to finalize an appropriate climate treaty. As a consequence, the climate community of practice was exploring ways to develop policy interventions that would collectively summon up sufficient ambition and safeguard the development aspirations of vulnerable communities. By advocating a public facing narrative built around human rights and climate change, and by suggesting potential legal avenues to push for climate action, this article is a contribution to that conversation.

In terms of building the evidence base of this research, this was the first attempt to outline the weight of scientific evidence supporting climate change and establish the implications across a range of socio-ecological issues. It was further the first of the articles to provide an in-depth description of vulnerability and by so doing identified social, cultural, economic, and political aspects as being critical for addressing climate change. In particular, the analysis presented in this article highlighted access issues as being critical for addressing climate change. This includes access to decision-making as a means to provide vulnerable communities with the opportunity to account for their experience and advocate for urgent and ambitious reductions of greenhouse gas emissions. It further includes access to resources, which enables vulnerable populations to strengthen adaptive capacity in the face of inevitable climate impacts.

This is the first attempt to emphasize the value of a rights-based approach in fundamentally changing understanding of climate change from an environmental to a human issue, which in turn serves to bring new constituencies of demand into the discourse for the first time. This is achieved by focusing on the injustices of climate change and consequently using this narrative as a moral spur to action. This moral argument is supplemented by the legal pathways opened by a rights-based approach to climate change, which is both distinct and complimentary to political and policy efforts. In so-doing the pursuit of climate action under human rights law is offered as a possible new and additional policy “alternative”.

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<sup>151</sup> UNFCCC (2007).

IV. **Article 3:**

Cameron, E (2010) *Human Rights and Climate Change: Moving from an intrinsic to an instrumental approach*. In **Georgia Journal of International and Comparative Law**, Volume 38, Number 3, Spring 2010, 673-716.

*Synopsis:*

The Georgia Journal of International and Comparative Law is a recognized forum for academic discussion on current international subjects. From its inception in 1971 as a student initiative supported by former U.S. Secretary of State and UGA Law Professor Dean Rusk, the Journal features work by legal scholars and practitioners. With a staff composed entirely of second- and third- year law students, the Journal publishes three times each year and serves as a valuable research tool for practicing lawyers and students of the law.

This particular article was published in 2010 as part of a special volume profiling select manuscripts from an international symposium on international human rights and climate change. It was aimed at legal scholars and outlines ways in which climate undermines the realization of rights; the potential for climate policy to also undermine the realization of rights if poorly conceived and implemented; and the ways in which human rights can benefit vulnerable communities as they seek to enhance resilience and push for greater ambition.

This article explores whether a human rights-based approach can aid the creation of a suitable politics to elevate climate on the decision agenda and assist in developing appropriate policy alternatives. Climate change is presented as a “threat multiplier” that exacerbates intersecting inequalities, heightens the conditions for internal conflict and instability in already volatile regions; and adds additional and often unmanageable stress to communities already suffering from extreme poverty, food insecurity, marginalization and scarcity of resources.

*Rationale and selection:*

This article is a pivotal point in the research as it hones in on the political shortcomings of the climate regime over a 20 year period and argues that a new approach to governance is needed to facilitate the necessary urgency and ambition. The analysis draws on the theories of David Kennedy who maintained that a vocabulary of arguments is critical in shaping expert knowledge which in turn informs how problems are defined and narrows the range of solutions considered. Kennedy’s work is important to the full scope of this research both because of the role of vocabularies of arguments in helping to elevate issues on the decision agenda and also because such vocabularies are vital to ultimately shaping policy alternatives.<sup>152</sup>

As this piece was published in a Law Journal, and aimed predominantly at legal scholars, the bulk of the analysis is spent assessing the relative merits of a legal approach to the nexus between climate change

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<sup>152</sup> Kennedy, David (2005).



and human rights by evaluating arguments from both proponents and opponents of this particular approach.

The proponents' arguments stems from two broad conceptual linkages. The first, which can be called the environmental approach to human rights suggests that protecting environmental quality is a precondition to the enjoyment of internationally recognized human rights especially the rights to life and health. Therefore protecting environmental services from climate change becomes an essential instrument in the efforts to secure the effective universal enjoyment of human rights. The second approach, sometimes referred to as a human rights-based approach views certain human rights as essential precursors to achieving environmental protection. The focus here is on procedural rights dealing with access to information decision-making and justice. Proponents argue that the body of international environmental and human rights law provide sufficient means to hold governments accountable for shortcomings on both greenhouse gas emissions and also the failure to adequately strengthen adaptive capacity.

Opponents argue that previous experience illustrates the limitations of a legal approach for addressing both environmental degradation as well as widespread human rights violations in cases where the harm, duty bearer and rights holder are all easy to identify. They further argue that the complex nature of climate science means that tracing the link from a specific social response to the breakdown of a particular ecosystem service to a unique climate induced event caused by readily identifiable greenhouse gas from a specific source in one country is next to impossible. As a result the benefit of pursuing a purely legalistic approach to climate change and human rights is limited.

The analysis in this article recognizes that both sides of this debate are both legitimate and contestable, however this article represented a watershed moment in this research as future articles and analysis would focus less on the purely legal approach to the nexus between human rights and climate change and would begin to look in more depth at other facets of the interface, particularly those with political, instrumental and developmental aspects.

V. **Article 4:**

Cameron, E (2011) *Development, climate change and human rights: From the margins to the mainstream?* **World Bank Social development Working Papers**. Paper No. 123/February 2011. The World Bank. Washington, DC.

*Synopsis:*

This article was published by the Social Dimensions of Climate Change (SDCC) practice group of the World Bank as paper number 123 in the Social Development Papers series. The SDCC Practice Group contributes to the World Bank's mission to fight poverty by helping to realize climate-smart policies and operations in developing countries that advance the interests of those who are most vulnerable to the effects of climate change. Social Development Papers seek to introduce new analysis targeted at development practitioners with a view to understanding and addressing the distributional, poverty and social consequences both of climate variability and change, and of policies and approaches to addressing the effects of climate change

(climate action). This includes understanding how climate- and non-climate-related drivers of vulnerability interact with one another; addressing social risks and opportunities in climate change mitigation; identifying appropriate operational and policy entry points for building societal resilience and pro-poor adaptation to natural disasters, climate variability and change; and minimizing the risks of elite capture and social exclusion in such forms of climate action.

This particular article was published in February 2011 following both internal and external peer review. Initial internal review was provided by colleagues within the SDCC practice group. This was followed by formal review from representatives drawn from across World Bank departments and regions, notably colleagues from the Environment Department to validate the climate change content, and colleagues from the Legal Affairs Department to assess the legal and human rights dimensions. External peer review was provided by Professor John Knox, who has subsequently been appointed as the UN Special Rapporteur on human rights and environment; by Blake McDaniel from the Georgia Journal of International Comparative Law; and by Kirk Herbertson of the World Resources Institute.

This article chronicles the emergence of the interface between human rights and climate change and examines which branch of human rights vulnerable populations are invoking in their efforts to drive urgency and ambition. It further presents the nexus between climate change and human rights as a transformative socio-political strategy helping to both elevate issues of vulnerability and resilience on the decision agenda and also propose instrumental ways in which human rights can shape climate policy alternatives. Specifically, it suggests six distinct ways in which a rights-based approach can aid vulnerable populations. These are: influencing the vocabularies, expertise, and sensibilities of development practitioners; improving analysis of drivers, impacts, and climate thresholds; enhancing governance, consultation, and participation of marginalized groups; providing a means for authoritative advocacy and enhanced political profile for vulnerable communities; broadening the terms of the climate change dialogue to grow domestic constituencies of demand; and providing instrumental value for development practitioners as they seek to climate proof their investments.

In terms of methodology, this paper involved interviews with academics and policy practitioners who have shaped the discourse on climate change and human rights; a wide-ranging literature review of texts relevant to the fields of development, climate change and human rights; discussions with development professionals who have the daily responsibility of operationalizing approaches to reducing vulnerability and building resilience; and finally drawing upon the authors own experience leading the Maldives government's initiative on the human dimensions of climate change and subsequently as a consultant within the social dimensions of climate change practice group at the World Bank Social Development Department.

Unlike the previous article published in the Georgia Journal of international comparative law, this paper is not a legal piece but rather focuses specifically on the wider political economy aspects of the interface between human rights and climate change.

*Rationale and selection:*

This article was requested by the Social Development Department at the World Bank. The newly formed social dimensions of climate change practice group had begun to examine the relationship between climate change and social development with a particular focus on poor and marginalized groups. Moreover, the World Bank was beginning to take note of a number of intersecting issues related to climate change and human rights. First, there was a growing awareness that vulnerable groups around the world were looking at the legal dimensions of the interface between climate change and human rights as a potential avenue to pressure major greenhouse gas emitters to take aggressive climate action. As a major funder of energy and infrastructure projects, the World Bank wanted a better understanding to assess any potential exposure to risk. Second, the bank's own development practitioners were heavily involved in rethinking issues of vulnerability and resilience with a greater focus on intersecting inequalities as drivers of vulnerability and social development interventions as catalysts for resilience. The bank was therefore keen for research that would operationalize some of the ways in which social development could contribute to resilience building. Third, while accepting the inherent value of human rights, the bank was keen to examine whether there were particular instrumental benefits to pursuing a rights-based approach to climate action. Success on this final point would prove to be critical to mainstreaming a greater understanding of the interface between climate change and human rights as well as the benefits of a rights-based approach across the departments and read the World Bank.

This article analyzed and compared two distinct branches of the human rights discourse. The first branch, which is characterized as ethical, philosophical, or rhetorical maintains that all human beings are endowed with a set of rights that employ obligations and duties for other people. This branch has provided a basis for moral calls to action on a range of social and political issues over generations and has proven to be effective in elevating issues on the political decision agenda that might otherwise have languished. Second, is often termed juridical, legislative or legal. This branch contends that human rights can only be understood as the rights prescribed by law. Proponents of this branch tend to think of the Nexus between climate change and human rights as one resulting in litigation against major greenhouse gas emitters telling them to pursue climate mitigation approaches.

The article was written in the aftermath of the Copenhagen climate summit in 2009, and as a result the analysis validates the sense that the old climate politics had run its course and that the ability of ecological narrative to persuade people of the urgency of climate change was no longer going to be sufficient. Furthermore, it was clear from the failure in Copenhagen that resolving the long-standing cleavage concerning CBDRRC was going to be an essential pre-requisite to any further progress on climate change.

VI. **Article 5:**

Cameron, E and Limon, M (2012) *Restoring the Climate by Realizing Rights: The Role of the International Human Rights System*. In **Review of European Community & International Environmental Law** 21 (3) 2012. Blackwell Publishing Ltd. Oxford.

*Synopsis:*

This article was co-authored with Marc Limon<sup>153</sup> in the spring of 2012 and featured in the *Review of European Community and International Environmental Law (RECIEL)*. Published by John Wiley & Sons, RECIEL is a leading academic journal focused on international environmental law, with a wide readership in Europe and the United States. This special issue featured six articles from leading scholars and practitioners on the role of various international institutions in promoting greater cooperation to combat climate change.

RECIEL ensures rigorous peer-review process for all volumes of the Journal. This article was initially peer reviewed by Dr. Harro van Asselt PhD, a Visiting Research Associate with the Environmental Change Institute at Oxford University and a postdoctoral Research Fellow with the Stockholm Environment Institute; and Mr. Remi Moncel, Senior Associate at the World Resources Institute and a JD candidate at the University of California at Berkeley. Both were serving as co-editors of the edited volume. Additional reviewers were subsequently selected to conduct a “blind review” of the manuscript.

This article explores how the institutions and tools of the human rights system could be deployed to complement the negotiations conducted under the auspices of the UNFCCC. In particular, the article outlines ways in which the various Special Procedures<sup>154</sup> (SPs) of the Human Rights Council, along with the Universal Periodic Review<sup>155</sup> (UPR), can both contribute to elevating climate on the decision agenda,

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<sup>153</sup> Marc Limon is Executive Director of the Universal Rights Group in Geneva. At the time of publication of this article, he was serving as Counsellor at the Permanent Representation of the Maldives to the United Nations Office in Geneva. Mr. Limon co-organized the 2007 Male’ conference on the Human Dimensions of Climate Change, and was co-lead of the Human Dimensions of Climate Change initiative. He drafted and negotiated UN Human Rights Council Resolutions 7/23 and 10/4 both of which deal of climate change and human rights; and UN Human Rights Council Resolutions 16/11 and 19/10 which resulted in the establishment of a new UN Special Procedure mandate on human rights and the environment. Mr. Limon has published articles on human rights and climate change in the Georgia Journal of International and Comparative Law and the Harvard Environmental Law Review.

<sup>154</sup> “Special Procedures” is the general name given to the human rights Council mechanisms established to address either human rights situations or issues. There are different types of special procedure including “Rapporteurs” and “Independent Experts”. These often carry the generic term “mandate holder”. These “mandate holders” are respected experts in their field and are usually tasked with either examining, monitoring, advising, and publicly reporting on human rights situations in specific countries or territories (“country mandate”); or on major phenomena of human rights violations worldwide (“thematic mandates”). For the full list of special procedure mandates please see <http://www.ohchr.org/EN/HRBodies/SP/Pages/Welcomepage.aspx>.” For more information on human rights special procedures and other mechanisms please see e.g., B. Ramcharan, *The UN Human Rights Council* (Routledge, 2011).

<sup>155</sup> For a comprehensive overview of the Universal Periodic Review (UPR) please consult the Office of the UN High Commissioner for Human Rights <http://www.ohchr.org/en/hrbodies/upr/pages/uprmain.aspx>

strengthen existing policy approaches to raising climate ambition, and offer new alternatives to building climate resilience.

UN Special Procedures deal with issues including the rights to food, adequate housing, access to safe drinking water and sanitation, rights of indigenous peoples, internally displaced people. At the time of writing, a number of these mandate holders were beginning to focus significant parts of their work on the impacts of climate change. The SPs are important for a number of reasons. They bring alleged human rights violations or abuses to the attention of governments; conduct thematic analysis to explore ways to strengthen the realization of rights; contribute to the development of international human rights standards; and provide technical advice to governments with the goal of strengthening human rights within countries. Mandates cover issues as diverse as the rights to food, water, adequate housing, environment and health; the rights of various groups such as women and indigenous peoples; and the roles of various stakeholders in safeguarding human rights including business and the legal profession. Because they are responsible for reporting on and advising about shared international human rights norms, the analysis and periodic pronouncements of the mandate holders carry a degree of moral force and as a result held potential for elevating climate on the decision agenda. Moreover, mandate holders provide recommendations on policies that can improve policy outcomes for their areas of focus. As a result they have influence in shaping policy alternatives across a broad spectrum of climate and development domains.

In addition, Parties to the UNFCCC were in the midst of difficult negotiations with the goal of establishing effective mechanisms to enhance transparency and accountability in the international climate regime. The mechanisms in question are known in climate policy jargon as “monitoring, reporting and verification” (MRV). The purpose of this analysis was to harvest lessons from the UPR that could be applicable to the design of enhanced MRV mechanisms within the UNFCCC. As a result the UPR is addressed as a means to build transparency and accountability into government self-assessments. Under the UPR, states are provided an opportunity to declare what actions they have taken to improve the human rights situations in their countries and to fulfil their human rights obligations. This now includes an opportunity to declare what action is being taken on climate in order to build resilient communities. This in turn provides an opportunity to encourage states to consult with the most marginalized and vulnerable communities and to develop policy alternatives to build their resilience. It further provides civil society actors with an opportunity to comment on and query state action on climate change.

#### *Rationale and selection:*

This article covers terrain that other scholarly work on this issue had not addressed. While the lead in sections continue the practice of presenting the intimate link between climate and rights, and outlining the intrinsic value of a rights-based approach to building climate action, the core material here focuses on instrumental value of a human rights based approach to climate change policy. In particular, ways in which the special procedures and the universal periodic review can contribute to enhanced climate ambition are suggested. At the same time, the authors also offer constructive critique of both of these mechanisms

and offer recommendations on how they can evolve to become more effective in enhancing rights while strengthening climate policy alternatives.

Importantly, this article also sought to reach new and different audiences. A conscious decision was made to publish in a European publication as previous articles had been prepared for North American constituency. In addition, whereas the previous two articles had focused on development practitioners and legal scholars, this article was aimed at both human rights practitioners and climate change negotiators. The desired outcome in the previous two articles was enhanced social development interventions using a human rights-based approach to tackle drivers of climate vulnerability. The desired outcome of this piece was to encourage cross-pollination between human rights and climate change regimes.

#### VII. Article 6:

Cameron, E. Shine, T. and Bevins, W. (2013) *Climate Justice: Equity and Justice Informing a New Climate Agreement*. **World Resources Institute Working Paper Series**. World Resources Institute, Washington DC and Mary Robinson Foundation Climate Justice, Dublin.

#### *Synopsis:*

This article was published jointly by the World Resources Institute (WRI) and the Mary Robinson Foundation Climate Justice (MRFCJ). WRI is widely regarded as one of the leading environmental think tanks in the World with a focus on the intersection of environment and socio-economic development. MRFCJ is a center for thought leadership, education and advocacy with a focus on securing global justice for people vulnerable to the impacts of climate change. Led by Mary Robinson, the former President of Ireland and UN High Commissioner for Human Rights, MRFCJ is particularly known for its work with women and in Africa.

This article was co-authored with Dr. Tara Shine, Head of Research and Development at MRFCJ and Wendi Bevins, a Research Assistant at WRI. WRI working papers contain preliminary research, analysis, findings, and recommendations. They are circulated to stimulate discussion and to influence ongoing debate on emerging issues. The research methodology involved a triangulation of approaches combining a comprehensive literature review, expert interviews with leading thinkers in the fields of human rights and climate change, and focus groups conducted throughout 2012 in Bonn, Bangkok and Doha. More than one hundred experts on climate and rights participated in expert interviews and focus groups during the preparation of this paper. Once the first draft was complete, the paper was submitted to a vigorous internal and external peer review process. As with all WRI papers the initial review was conducted by the Office of Vice President of Science and Research. They evaluated the paper for appropriate research design, methodology, analytical rigor and quality of the evidence base. From there the paper was assessed by content specialists inside WRI and MRFCJ including Yamide Dagnet, Johan Schaar and Pieter Terpstra evaluating the sections on the UNFCCC; and Paul Joffe judging the sections on equity. Finally, the paper was released for external peer review to Saleem Huq (International Institute for Environment and

Development in London); Lavanya Rajamani (Centre for Policy Research in India); Youba Sokona (South Centre in Ethiopia); and Ana Toni (Public Interest Management in Brazil).

This paper analyzes the role of equity in the climate negotiations and explores how a climate justice approach could reform the principals of equity and CBDRRRC in pursuit of climate ambition and in the service of vulnerable populations. The paper concludes by exploring the potential of climate justice narratives in mobilizing domestic constituencies of demand for climate action. The authors suggest a variety of constituencies that can use climate justice narratives and how similar narratives have been used in other social movements.

The final piece was published as a working paper as part of a unique and unprecedented collaboration titled “The Climate Justice Dialogue”, which aims to mobilize political will and creative thinking to shape an equitable and ambitious international climate agreement in 2015.

#### *Rationale and selection:*

The analytical focus of this article was conceived at the 17<sup>th</sup> Conference of the Parties (COP17) to the UNFCCC held in Durban, South Africa in November and December 2011. COP17 concluded with the adoption of the “Durban Platform for Enhanced Action”<sup>156</sup>, a distinct negotiating track designed to result in a “new protocol, another legal instrument or an agreed outcome with legal force under the Convention”<sup>157</sup> by 2015. The so-called “Durban Platform” was the first major decision text in the UNFCCC to omit mention of both “Common But Differentiated Responsibilities and Respective Capabilities (CBDRRRC)” and “Equity”. These concepts, enshrined in the UNFCCC through Article 3 of the Convention have been central to the negotiations for over 20 years and govern the sharing of both the burdens and opportunities presented by the transition to a low-carbon future. They are also the single most controversial and contentious principles in the climate negotiations, and have arguably been responsible for undermining ambition, urgency, and consensus for two decades.

It was clear even as COP17 was drawing to a close, these two fundamental concepts would return and that further progress would depend on the ability to reimagine both concepts in a manner consistent with bold collective action by all and the ultimate goal of holding global mean temperature rises below 2°C above preindustrial levels. As a consequence, this analysis was conceived as a foundational paper to inform the establishment of a new dialogue to examine how principles of climate justice could be used to reimagine CBDR and equity.

Throughout this research the nexus between climate and human rights had been referred to long-form. This paper was the first occasion in which the term “climate justice” was used as short-hand to describe

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<sup>156</sup> For more information on the “Durban Platform for Enhanced Action” please consult:  
<http://unfccc.int/bodies/body/6645.php>

<sup>157</sup> UNFCCC (2011).

this nexus. As a consequence this paper represents the coming together of years of research into a cohesive theory of climate justice consisting of the following:

- Aggressive greenhouse gas emissions reductions to avoid dangerous climate change and safeguard human rights from climate impacts.
- A rights-based approach to shape policy interventions on climate change by ensuring participation and access to decision-making for vulnerable and marginalized populations
- A rights-based approach to evaluate climate policy alternatives ensuring that they benefit those who are least responsible for climate change and avoid negative social implications.
- The use of moral, ethical, and human rights arguments to elevate climate on the decision agenda, mobilize domestic constituencies of demand, and consequently encourage decision-makers to raise their level of ambition.
- The use of human rights instruments to shape and improve the climate regime.
- The strengthening of procedural and substantive rights to enhance adaptive capacity strengthening resilience.

This article therefore represents a unique and previously untested attempt to examine how the application of human rights and climate justice could be used to reframe core principles within the UNFCCC and as a consequence shape actual policy alternatives emerging from the climate negotiations. This article also provided depth of analysis on how climate justice could serve as a powerful narrative to mobilize domestic constituencies of demand in support of an equitable and ambitious global agreement. These constituencies include grassroots organizations, vulnerable communities, young people, small businesses, local governments, trade unions, and civil society. To be effective in creating political will, actors not traditionally associated with environmental issues will have to be engaged and narratives tailored to motivate their members. In preparing this article, a variety of social movements were examined to assess their use of justice narratives and its impact on real world issues. Despite being very different in terms of motivations and objectives these movements share a common core, namely the use of “justice” as a mobilizing narrative. This article consequently presents the lessons harvested from these movements for application within the climate community.



## Part VI: Conclusions

*Part VI assess the impact of this research and provides recommendations for the international climate negotiations harvested from the analysis gathered from this investigation into the nexus between human rights and climate change. These aspects are addressed in the following sections:*

- *The immediate and long-term impact of this research*
- *Shaping policy alternatives through research findings*

### **I. The immediate and long-term impact of this research**

This research has led to multiple impacts in both academic circles and in the public policy realms relating to human rights and climate change.

The initial research influenced the preparation of the Maldives climate change and the two UNHRC Resolutions, which followed. The first of which requested the Office of the United Nations High Commissioner to prepare a study on the relationship between climate change and human rights<sup>158</sup>; with the second one establishing new informal mechanisms for dialogue between the international human rights and climate change regimes<sup>159</sup>. It furthermore influenced the content of the report from the United Nations Office of the High Commission on Human Rights (UNOHCHR) in response to UNHRC Resolution 7/23 which outlined the links between climate change and human rights.<sup>160</sup>

As the research progressed it began to inform the wider strategy of the AOSIS in Copenhagen and Cancun during successive gatherings of the UNFCCC. In particular, AOSIS negotiators were provided with the rationale and strategy to push for perambulatory and operative language in the Cancun Agreements. Paragraph 8 under section I of the Cancun Agreements, adopted at the 16<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change, “emphasizes that Parties should, in all climate change related actions, fully respect human rights”<sup>161</sup>. This is significant as it reflects the first recognition of the human rights impacts of climate change in any international climate agreement. In addition, paragraph 7 highlights the need for participation of frontline communities in decision-making processes. Important progress was also made on respecting the rights of Indigenous Peoples on matters related to deforestation; and for the first time governments recognized that human rights consequences could emerge as a result of climate policies and response measures. Further headway was made at the 18<sup>th</sup> Conference of the Parties in Doha in 2012 when governments adopted a decision on promoting

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<sup>158</sup> UNHRC (2008).

<sup>159</sup> UNHRC (2009).

<sup>160</sup> OHCHR (2009).

<sup>161</sup> Conference of the Parties (2011), p.3.

gender balance and improving the participation of women in UNFCCC negotiations and in the representation of Parties in bodies established under the Convention<sup>162</sup>.

The research has also had implications for the functioning of institutions. The analysis of the instrumental value of the nexus between human rights and climate change for development practitioners informed the design, development and implementation of a training program on the “Social Dimensions of Climate Change” at the World Bank. This program, which was developed as both an e-training for all ten thousand World Bank staff, and as an in person training for Bank officials and UN staff in Washington, Bangkok and Turin, captured and conveyed the ways in which a human rights based approach improves understanding of both climate vulnerability and resilience and offers tools to strengthen adaptive capacity.

The final article in this research was an exercise in strategic learning. The research involved interviews with leading thinkers in the human rights and climate regimes, coupled with the convening of focus groups often with as many as 50 participants drawn from across geographies, disciplines, and negotiating blocs. As a consequence, the early content and analysis had an immediate impact on the shape of negotiations prior to publication. During these focus groups and interviews, often organized on the fringes of formal UNFCCC meetings, informal spaces for dialogue were provided to negotiators, and the analysis emerging from the ongoing research was able to infuse their discussions with thinking on how CBDR and equity ought to be reframed using a climate justice lens. At the same time, there was a marked increase in the use of climate justice as a narrative pushing for greater ambition both through the international negotiations and also when advocating for domestic climate policies in key economies. Once published, this article became the foundational analytical piece for the Climate Justice Dialogue. It has spawned additional research<sup>163</sup> and advocacy pieces<sup>164</sup> and has informed the political strategies adopted by both the World Resources Institute and the Mary Robinson Foundation Climate Justice on matters relating to CBDRRC and Equity.

This article is continuing to have an effect as evidenced by the increasing prominence of climate justice is a powerful narrative in support of urgent and ambitious climate action; increasing efforts to reframe CBDRRC and equity within the UNFCCC; and a greater focus on ambition as being an essential part of securing justice for vulnerable communities. The climate justice narrative was amongst the most prominent during the “people’s climate march” that took place in New York City and across 162 locations in September 2014<sup>165</sup>. Indeed the focus on climate justice has become widespread with organizations across the full spectrum of stakeholder groups now using both the terminology and the underlying principles. Within the UNFCCC, efforts to redefine CBDRRC and Equity in line with the need for bold collective action for all our continuing to gather pace. The announcement by United States and China to address their respective greenhouse gas emissions is potentially a watershed moment that breaks down

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<sup>162</sup> Conference of the Parties (2013).

<sup>163</sup> See for example Joffe, P., D. Waskow, K. DeAngelis, W. Bevins, and Y. Dagnet (2013) and Waskow, D., Bevins, W., Northrop, E., Weatherer, L., Joffe, P., Klinsky, S., Kutter, P (2014). Both are available from [www.climatejusticedialogue.org](http://www.climatejusticedialogue.org).

<sup>164</sup> For example the “Declaration on climate justice” issued by the High Level Advisory Committee on the Climate Justice Dialogue available from [http://www.wri.org/sites/default/files/declaration\\_on\\_climate\\_justice\\_0\\_0.pdf](http://www.wri.org/sites/default/files/declaration_on_climate_justice_0_0.pdf)

<sup>165</sup> For further information please refer to: <http://peoplesclimate.org/wrap-up/>

the traditional divide between developed and developing countries that is marked CBDR for so long. And the current UNFCCC negotiating text being considered by governments contains both human rights language in preamble and crucially text pointing to a long-term decarbonization pathway, which recognizes the need for ambition as a prerequisite for justice.

In October 2014, 27 of the 39 independent experts holding mandates to report and advise on human rights issues for the UN Human Rights Council coauthored an open letter calling on all governments to ensure full coherence between their human rights obligations and their efforts to address climate change. It further called on them to recognize the adverse effects of climate change on the enjoyment of human rights, and to adopt urgent and ambitious mitigation and adaptation measures to prevent more harm to socioecological systems globally.<sup>166</sup> Using language familiar to the human rights community, they asked governments to respect, protect, promote, and fulfill human rights for all in all climate change policies. This letter is the most recent illustration of how the nexus between climate change and human has moved from “silence to salience” during the lifetime of this doctoral research.<sup>167</sup> Prior to 2008 none of the mandate holders were covering this issue. A mere six years later and the vast majority consider it critical to their respective fields. This reflects the large body of work from scholars, the UN, international organizations, and civil society that has highlighted how climate change is undermining human rights and how a human rights approach can be used to strengthen climate resilience.<sup>168</sup> There has been a parallel growth in scholarly work on this issue as well as outputs from international organizations and justice-based advocacy conducted by civil society actor. A cursory review of the “climate justice repository” housed by the Glasgow Caledonian University Centre for Climate Justice provides ample evidence in support of this.<sup>169</sup>

Studies of climate change have become far more consistent in reporting on human impacts and media coverage has become far more reliable in communicating human stories. Thresholds that measure social vulnerability to climate change have become far more prominent and as a consequence social development techniques to enhance climate resilience have become far more prominent.

However, these important steps feel like the beginning rather than the culmination of a long-journey. In 2014, Sebastien Duyck of the Northern Institute of Environmental and Minority Law at the University of Lapland wrote an unpublished report titled “Respecting human rights in climate action: an assessment of countries policies through a review of national reports”. Duyck assessed how human rights have been integrated into climate action during through a review of national reports to the United Nations

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<sup>166</sup> Office of the High Commissioner for Human Rights (2014).

<sup>167</sup> I first used this phrase to underscore the rapid evolution of the nexus between climate change and human rights in Cameron, E (2010) *Human Rights and Climate Change: Moving from an intrinsic to an instrumental approach*. In **Georgia Journal of International and Comparative Law, Volume 38, Number 3**, Spring 2010, 673-716.

<sup>168</sup> Much of this work can be accessed through the Climate Justice Research Hub hosted by the Glasgow Caledonian University, in partnership with the Mary Robinson Foundation for Climate Justice (MRFJ). This is a repository of unique and reliable source of peer-reviewed materials on the socio-economic effects and human-centred implications of climate change currently containing more than 1000 academic papers. Available from: <http://www.gcu.ac.uk/climatejustice/repository/>

<sup>169</sup> Please refer to <http://www.gcu.ac.uk/climatejustice/>. The repository houses more than one thousand reports and articles written on climate justice since 2002.

framework convention on climate change and the United Nations human rights Council covering the past four years, using the Cancun Agreements of 2010 as a starting point. Duyck found that 39% of national communications to the United Nations framework convention on climate change contain explicit references to efforts to respect human rights in climate policies. This compares with 23% of country submissions to the Human Rights Council Universal Periodic Review that include a reference to linkages between human rights and climate change. However, he also concluded that the majority of references related to ways in which climate change would undermine the realization of rights. Little action on using rights as instrumental policy tools in pursuit of climate resilience were evident.<sup>170</sup> This illustrates the most significant collective challenge facing the nexus between climate change and human rights. During the period covered by this research the nexus between human rights and climate change has become highly relevant but it has not, as yet, become highly effective. This is perhaps the most urgent task facing scholars and advocates for climate justice over the coming years.

The full integration of human rights and climate change will be extremely challenging though not impossible. Continued “path dependence”<sup>171</sup> between the climate change and human rights policymaking communities will need to be overcome. Deep and persistent misconceptions, misgivings and, in many cases, outright hostility to integrating human rights into an already overcrowded and complex UNFCCC agenda; especially when human rights is considered, by many, to be a controversial issue with the potential to derail progress will need to be addressed. The absence of a numerically---significant and geographically---diverse group of core supporters at the COPs to the UNFCCC will continue to undermine support for full integration of human rights unless a larger coalition can be constructed.<sup>172</sup>

## ***II. Shaping policy alternatives through research findings***

The need to achieve full integration is gathering a sense of urgency in light of efforts to finalize a new international climate agreement, scheduled for adoption at the 21<sup>st</sup> COP meeting in Paris in December 2015. This body of research has harvested a number of basic propositions that together represent a baseline for what an equitable and ambitious international climate agreement in 2015 should seek to achieve. They are intended as starting points for reasoning about how the new agreement should close the emissions gap, catalyze the transition to low carbon development, and contribute to the progressive realization of human rights in a climate constrained world. Like any theory of justice they are influenced by philosophy, designed for practical application, and ultimately contestable.

First, the new agreement must be designed to hold global mean temperature rises below 2°C above pre-industrial levels. This is a pre-requisite for avoiding the manifest injustices that result from breaching this threshold and it is the essential bedrock upon which all else must be constructed.

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<sup>170</sup> Forthcoming, Mary Robinson Foundation Climate Justice (2015).

<sup>171</sup> For an analysis of path dependency please refer to Pierson, P (2000).

<sup>172</sup> Forthcoming, Limon, M., Cameron, E., and Pejan, R (2015).

Second, achieving this goal is a common responsibility for all and so must include bold action by all. The “brutal arithmetic” no longer supports the notion of an incremental range of actions by a small subset of nations.

Third, both climate change and potentially climate responses have significant implications for the realization of human rights. Developing sound climate policies could benefit from fully utilizing human rights as a narrative, a diagnostic tool, a source for inspiration, and a means to ensure participation, accountability and transparency.

These propositions can be used to shape a variety of practical policy alternatives with reform of CDBRR as the core imperative. A climate justice lens can craft this reform.

An approach based on climate justice would require acknowledgement of historical responsibility. As Nick Stern points out industrialized countries are the source of around 70% of the cumulative greenhouse gas emissions produced since 1950.<sup>173</sup> They are therefore responsible for the accumulation of a dangerous stock of historical pollution. One could argue that many industrialized countries have already acknowledged historical responsibilities and even honored their need to go first and further by signing up to two commitment periods under the Kyoto Protocol. However, the attempts by some industrialized countries to deny historical responsibility as a legitimate principle of the Convention has led to a cycle of mistrust, shifted the burden of action to developing countries, and exacerbated what was already an unprecedented global challenge. Some of the poison in this debate could be drawn by acknowledging historical responsibility.

An approach based on climate justice would tie future commitments to capabilities and would encourage all to act to the limits of those capabilities. While history matters, the future matters even more. Emissions reductions based on historical responsibility alone is no longer sufficient to secure climate justice. Stern’s brutal arithmetic highlights the growth of emissions in developing countries over the coming two decades. In the immediate-term countries with second-round Kyoto targets only constituted 13.4% of annual global anthropogenic greenhouse gas emissions in 2010.<sup>174</sup> Demanding climate action from developing countries may seem unfair in the Convention process, but it is arguably a necessary injustice – critical for avoiding the greater injustice of breaching the 2°C threshold.

Climate justice requires that differentiation be preserved but that it ought to be dynamic. Countries are at different stages of development, have different national contexts and exist on a broad spectrum in terms of capabilities. The new agreement needs to recognize these differences and not fall into the trap of treating all countries the same. In addition, the climate regime needs to account for change in circumstances and so provide a system that is dynamic rather than static. The current binary divisions between countries that reflect the world as it was in 1992 is no longer relevant in the second decade of the twenty-first century. The Montreal Protocol, dealing with the phase-out of chemicals contributing to

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<sup>173</sup> Stern, Nicholas (2009).

<sup>174</sup> UNEP (2012).

ozone depletion, contained key elements of differentiation. Developing countries were provided a delay of ten years to comply with industrial country limits. Also, developing countries were funded for the incremental costs of participation, with funding apportioned according to the United Nations assessment scale.<sup>175</sup> Graduation has long been debated in climate negotiations, including during the creation of the Kyoto Protocol. Nevertheless, with the possible exception of the voluntary Copenhagen Accord emission reduction pledges, there is no current middle ground between Annex I and non-Annex I countries' responsibilities, particularly for the introduction of an emissions cap. An approach that allows graduation from voluntary agreements to mandatory packages might allow the regime to take up new challenges and produce new legal instruments without the burden of trying to carry all countries along immediately.<sup>176</sup>

And finally, implementing climate justice into the new agreement would recognize the need for ambition and equity to apply to all parts of the climate regime. In 1992 the climate regime was designed primarily to reduce greenhouse gas emissions and so the focus of the UNFCCC was squarely on mitigation. Over the course of the last two decades the regime has grown more complex and today also includes action on technology, adaptation, finance, capacity building and support and loss and damage. Discussions on equity have also traditionally focused on the mitigation building block with the bulk of ideas on how to operationalize equity concerning ways to share the burden of emissions reductions. Adopting a differentiated view of equity, with a range of approaches applied across the various building blocks, would create the option of designing a package that may not be "equitable" in the component parts but could be "equitable" in the balance. Countries would commit to different types of commitments under the different building blocks and would be prepared to sign up to different types of dynamic differentiation. One country might be willing to commit to supporting the provision of climate finance for low carbon development immediately while receiving a grace period for reducing greenhouse gas emissions. Another country might feel reluctant to negotiate quantified emissions reductions in the short-term while making aggressive commitments on adaptation. Finding a way to respect different types of commitments, each of which contribute to the goal of climate compatible development could be one way of ensuring greater participation in the regime, bold collective action by all, without forcing countries into position and agreements that are politically unpalatable.

These represent the instrumental ways of applying the nexus between human rights and climate change to the specific opportunity presented by the preparation of the new climate agreement. Over the coming years the lessons harvested in this research will be available to support the ongoing development of global climate change policy.

### ***III. Final Thoughts***

This research has analyzed the ways in which climate change undermines the realization of rights and the numerous ways in which strengthening human rights can contribute to building climate resilience. As this

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<sup>175</sup> United Nations (1987).

<sup>176</sup> Bell, R., et al (2012).

work draws to a close human rights are revealed to be inputs to climate resilience but also outcomes from efforts to stabilize the global climate and so protect the socio-ecological systems that sound development and prosperity requires. These outcomes are secured through a variety of policy alternatives some of which have no explicit relationship with human rights but serve human rights protection as an end goal. This research has revealed that the nexus between human rights and climate, best expressed through the term climate justice, will be achieved not through operative language on human rights in the Paris agreement, nor through resolutions of the Human Rights Council, nor through litigation of major emitters, but rather through a combination of activities that together raise ambition on emissions reductions commensurate with holding mean global temperature rises to 2°C above pre-industrial levels. In essence the research concludes with the thought that human rights must be the end goal of this process. In some cases they might also be the means – through procedural rights and the use of human rights laws. However, on other occasions human rights will be secured through solid GHG reductions, improved science education, investments in research and development, better overseas development assistance, the deployment of renewable energies.

John Kingdon's writes about policy windows of opportunity that allow advocates to push for action on their issues and on the types of policy alternatives that provide means for response. He argues that these windows do not remain open for long, as other issues compete for attention, the news cycle changes, politicians come and go, advocates become fatigued in the face of failure, and sometimes pacifying a problem begins to appear like success and so drain momentum and enthusiasm for genuine resolution.<sup>177</sup> A window of opportunity to address climate change has opened and will reach its pinnacle at the climate summit in Paris in December. The nexus between human rights and climate change has contributed to opening this window and will likely shape many of the policy alternatives that emerge from the other side.

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<sup>177</sup> Kingdon, John (2003).

## Part VII: Future Work

This research is likely to be followed by a series of additional analyses exploring different dimensions of the nexus between human rights and climate change.

First, a new assessment of ways to integrate the human rights and climate communities is under preparation titled “creating the enabling conditions to integrate human rights into climate action”. This is likely to be published in 2015 by MRFCJ and the Universal Rights Group (URG). The paper will propose and evaluate measures to secure perambulatory and operative language on human rights and climate change in the Paris agreement and explore other ways to mainstream human rights into the new climate architecture currently being developed within the UNFCCC. It will also provide an assessment of ways to strengthen monitoring and evaluation on human rights and climate change specifically by proposing options to mandate human rights integration into national communications prepared by both developed and developing countries as formal submissions to the UNFCCC. And finally, it will analyze ways to open new avenues for non-state actors to submit reports on the nexus between climate change and human rights to the UNFCCC.

Second, a paper examining the relationship between climate change and the UN Guiding Principles on Business and Human Rights is being developed. Human rights are increasingly seen as an entry point for many major corporations who have not previously taken an interest in climate change primarily because they have understood climate to be an environmental issue. A number of major companies in the consumer products, information communications and technologies, and financial services sectors have revealed that their board and shareholders are interested in social issues and human rights. As a consequence a new analysis undertaken by Business for Social Responsibility (BSR) and the Danish Institute of Human Rights will likely seek to develop a conceptual framework and draft strategy for linking rights, climate and business.

Finally, within climate change circles there is increased interest in so-called short-lived climate pollutants (SLCPs). SLCPs, which include black carbon (BC), methane (CH<sub>4</sub>), tropospheric ozone (O<sub>3</sub>), and hydrofluorocarbons (HFCs), have a short atmospheric lifetime compared to CO<sub>2</sub>, which can persist in the atmosphere for several centuries. Recent reports have revealed 16 measures that, if deployed by 2030, could slow down global warming expected by 2050 by about 0.5°C and by about 0.7°C in the Arctic by 2040.<sup>178</sup> Tackling SLCP emissions could also have major co-benefits. According to projections, between 0.7 and 4.6 million premature deaths from outdoor air pollution could be avoided annually, while annual crop yield losses of between 30 and 135 million tons could be averted.<sup>179</sup> There is scope to conduct an analysis of the ways in which SLCPs undermine human rights directly (i.e. health through respiratory illnesses) and indirectly (through climate impacts) and to assess the ways in which strengthening human rights could contribute to efforts to reduce the use of SLCPs around the globe.

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<sup>178</sup> Cameron, E.; Erickson, C.; Pratico, E; and Schuchard, R., (2015).

<sup>179</sup> Cameron, E.; Erickson, C.; Pratico, E; and Schuchard, R., (2015).



## Appendix

On 12 December 2015 196 Parties to the United Nations Framework Convention on Climate Change adopted the Paris Agreement bringing to a close four years of intensive diplomatic negotiations and creating the first truly universal climate agreement.<sup>180</sup>

The Paris Agreement contains twenty nine articles dealing with a broad spectrum of issues including *inter alia* greenhouse gas emissions reductions; strengthening adaptation in the face of inevitable climate impacts; the mobilization of finance to support climate compatible development; and regular stocktaking exercises to progressively raise national commitments over time. The Agreement further represents the most important international political instrument in support of climate justice ever adopted.

The preamble provides a tangible acknowledgement to the nexus between climate change and human rights. The eleventh perambulatory paragraph states that Parties should, “when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity”.<sup>181</sup>

There are also operative paragraphs dealing with so-called procedural rights, namely those that facilitate participation in decision making and access to information and justice. For example, Article 12 states that Parties “shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement”.<sup>182</sup> Moreover, equitable access to sustainable development including access to technology and finance are recurring themes. Emphasizing the intrinsic relationship that climate change actions, responses and impacts have with equitable access to sustainable development and eradication of poverty,

Together these elements confer a significant degree of input legitimacy on the Paris Agreement as they establish modes of operation in the climate architecture that recognizes asymmetrical impacts on marginalized groups; enhance participation of frontline communities in climate decision making; and provide a means to ensure that climate policy responses do not exacerbate vulnerability.<sup>183</sup>

Perhaps more importantly in the context of this research, the Paris Agreement contains unprecedented measures to raise climate ambition and so is rich in output legitimacy. This relates to the quality of the Agreement to deliver the core goal of international climate negotiations, namely “stabilization of

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<sup>180</sup> UNFCCC (2015)

<sup>181</sup> UNFCCC (2015), p21

<sup>182</sup> UNFCCC (2015), p28

<sup>183</sup> Boedeltje and Cornips (2004)

greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.<sup>184</sup>

Throughout this research human rights as an outcome has been surfaced above and beyond human rights as an input in terms of importance. The Paris Agreement provides a platform for securing human rights outcomes in a variety of ways.

First, the Agreement commits governments to the long-term goal of “holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial level”.<sup>185</sup> In addition, the Agreement creates a path to achieve this goal by committing governments to “global peaking of greenhouse gas emissions as soon as possible”, “rapid reductions thereafter in accordance with best available science”, with the intent to “achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century”.<sup>186</sup> Governments will work to achieve this long-term goal by establishing and subsequently reviewing national climate action plans on five-year cycles with the commitment to progressively increase ambition with each successive cycle. In essence this is a commitment to decarbonize the global economy in the second half of this century and so avoid the worst excesses of climate change and the detrimental impacts on human rights outlined in this research.

Second, the Agreement contains numerous provisions to enhance the adaptive capacity of populations already exposed to climate-induced risks. This includes establishing national adaptation plans and mobilizing finance in support of climate resilience.<sup>187</sup>

The final agreement therefore succeeds in sending signals to the wider global economy as anticipated in this research. The diplomatic agreement, which for the first time is universal in nature, sends a high-level political signal committing governments to long-term decarbonization. The decisions reached on climate finance do provide the market signals and financial incentives to shift money from high carbon development to low-carbon alternatives. The national climate action plans do create a changed regulatory environment within the 187 countries that have already prepared plans. And the complementary commitments by non-state actors bring local governments and the private sector into a wider collective action coalition.

The Paris Agreement is a platform to reconcile care for the climate with the realization of human rights. The Agreement is in many ways a manifestation of the coming together of agendas and alternatives. Political agreement between 196 Parties to the Convention only became possible because the political will to act was elevated substantially over many years and as negotiations drew to a close policy alternatives that could achieve consensus were surfaced by thought leaders from across academia, civil society, the private sector and government. The success of these policy alternative will now be tested through implementation and review over the coming years.

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<sup>184</sup> United Nations (1992a), p4.

<sup>185</sup> UNFCCC (2015), p22.

<sup>186</sup> UNFCCC (2015), p22.

<sup>187</sup> UNFCCC (2015), p25.

## Bibliography

- Allison, N. L. Bindoff, R.A. Bindschadler, P.M. Cox, N. de Noblet, M.H. England, J.E. Francis, N. Gruber, A.M. Haywood, D.J. Karoly, G. Kaser, C. Le Quéré, T.M. Lenton, M.E. Mann, B.I. McNeil, A.J. Pitman, S. Rahmstorf, E. Rignot, H.J. Schellnhuber, S.H. Schneider, S.C. Sherwood, R.C.J. Somerville, K.Steffen, E.J. Steig, M. Visbeck, A.J. Weaver (2009) **The Copenhagen Diagnosis: Updating the world on the Latest Climate Science**. The University of New South Wales Climate Change Research Centre (CCRC), Sydney, Australia.
- Anderegg, W., Prallb, J., Jacob, H., and Schneider, S (2010). *Expert credibility in climate change*. **Proceedings of the National Academy of Sciences of the United States of America**. June 22, 2010, 107
- Barrie Pittock, A. (2005) **Climate Change: Turning up the heat**. Earthscan, London.
- BASIC Experts (2011). **Equitable access to sustainable development: Contribution to the body of scientific knowledge**. Beijing, Brasilia, Cape Town and Mumbai. BASIC expert group, p61
- Bell, R., Ziegler M., Blechman, B., Finlay, B, and Cottier, T (2012) **Building International Climate Cooperation: Lessons from the weapons and trade regimes for achieving international climate goals**. World Resources Institute. Washington, DC.
- Bianco, N., Litz, F., Meek, K., and Gasper, R (2013) **Can the U.S. Get There from Here? Using Existing Federal Laws and State Action to Reduce Greenhouse Gas Emissions**. World Resources Institute, Washington DC.
- Blancas, A (2012) *The Ricardian Vice: A Schumpeter's observation* in **Papers in Evolutionary Political Economy Nr. 8**. European Association of Evolutionary Political Economy.
- Blaxter, L., Hughes, C., and Tight, M (2010) **How to research**. Fourth Edition. Open University Press, Maidenhead.
- Bryman, A (2008) **Social research methods. Third Edition**. Oxford University Press, Oxford.
- Boedeltje, M, and Cornips, J. (2004). *Input and output legitimacy* in **Interactive Governance (No. NIG2-01)**. NIG Annual Work Conference 2004 Rotterdam.
- Bodansky, D (2010) *Climate Change and Human Rights: Unpacking the Issues*. In **Georgia Journal of International and Comparative Law, Volume 38**, Number 3, Spring 2010, 511-524.
- Bodansky, D. (2001) *The history of the global climate change regime*. In Luterbacher, U. and Sprintz, D. (eds) **International Relations and Global Climate Change**. Cambridge, MA: MIT Press.
- Broecker, R and Kunzig, W (2009) **Fixing climate: the story of climate science - and how to stop global warming**. GreenProfile. London.
- Cameron, E (2014) **Key Findings from Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC AR5) for Agriculture**. BSR, CPSL and Cambridge University Judge Business School. Cambridge.
- Cameron, E (2011) *Development, climate change and human rights: From the margins to the mainstream? Social development Working Papers. Paper No. 123/February 2011*. Washington, DC. The World Bank.
- Cameron, E (2010) *Human Rights and Climate Change: Moving from an intrinsic to an instrumental approach*. In **Georgia Journal of International and Comparative Law, Volume 38, Number 3**, Spring 2010, 673-716.
- Cameron, E (2009) *The Human Dimension of Global Climate Change*. In **West Northwest Journal of Environmental Law and Policy**. Vol. 15, No. 1, pp1-15. San Francisco, UC Hastings.
- Cameron, E (2009) *Small Island Developing States at the Forefront of Global Climate Change*. In Starke, L (ed) (2009) **2009 State Of The World: Into A Warming World**. Worldwatch Institute. Washington, DC.
- Cameron, E.; Erickson, C.; Pratico, E; and Schuchard, R., (2015) *Business in a Climate-Constrained World (Second Edition): Creating an Action Agenda for Private-Sector Leadership on Climate Change*. **BSR Working Paper**. BSR, San Francisco.
- Cameron, E and Limon, M (2012) *Restoring the Climate by Realizing Rights: The Role of the International Human Rights System*. In **Review of European Community & International Environmental Law 21 (3)** 2012. Oxford. Blackwell Publishing Ltd.

- Cameron, E. and McMahon, H. (2010) *The EU-China Partnership: Forging a new space on global climate change*. In Jing Men (ed) **Prospects and Challenges for EU-China Relations in the 21st Century**. Peter Lang, Brussels.
- Cameron, E. Shine, T. and Bevins, W. (2013) *Climate Justice: Equity and Justice Informing a New Climate Agreement*. **World Resources Institute Working Paper Series**. World Resources Institute, Washington DC and Mary Robinson Foundation Climate Justice, Dublin.
- CDP (2013) **Global 500 Climate Change Report 2013**. CDP, London.
- CIEL and Earthjustice (2005) **Petition to the Inter-American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States**. Submitted by Sheila Watt-Cloutier with the support of the Inuit Circumpolar Conference on behalf of all Inuit of the Arctic Regions of the United States and Canada.
- Clark, C (2012) **The Sleepwalkers: How Europe went to war in 1914**. Allen Lane, London.
- Creswell, J (2003) **Research Design: Qualitative, quantitative, and mixed methods approaches**. Second Edition. Sage Publications, London.
- Conca, K. and Dabelko, G (2004) **Green Planet Blues: Environmental Politics from Stockholm to Rio**. Third Edition. Westview Press, Boulder, Colorado.
- Cook, J; Nuccitelli, D; Green, S; Richardson, M; Winkler, B; Painting, R; Way, R; Jacobs, P; and Skuce, A (2013) *Quantifying the consensus on anthropogenic global warming in the scientific literature*. **Environmental Research Letters. Volume 8, Number 2** (7pp). IOP Publishing.
- Danish Presidency of the European Council (2012) **Submission by Denmark and the European Commission on behalf of the European Union and its member states**. Copenhagen. Government of Denmark.
- Darrow, M. and Amparo T (2005) *Power, Capture and Conflict: A Call for Human Rights Accountability in Development Cooperation*, in **Human Rights Quarterly Volume 27, Number 2**. pp471-538. The Johns Hopkins University Press, Washington, DC
- David, M. and Sutton, C (2004) **Social Research: The basics**. Sage Publications, London.
- Davis, S., and Caldeira, K (2010) *Consumption-based accounting of CO2 emissions* in **Proceedings of the National Academy of Sciences of the United States (PNAS)**. March 23, 2010. Harvard University, Cambridge, MA.
- Dessler, A., and Parson, E. (2006) **The Science and Politics of Global Climate Change: A guide to the debate**. Cambridge University Press. New York.
- Dunleavy, P (2003) **Authoring a PhD: How to plan, draft, write and finish a doctoral thesis or dissertation**. Palgrave Macmillan, Basingstoke.
- The Economist (2012) *Drying Times: The 2012 Drought Will Dent Farm Profits and Push Up Food Prices*. **The Economist, July 19, 2012**, [www.economist.com/node/21559381](http://www.economist.com/node/21559381)
- Executive Office of the President (2013) **The President's Climate Action Plan**. The White House, Washington, DC.
- Friedman, M (2002) **Capitalism and Freedom: Fortieth Anniversary Edition**. University Of Chicago Press, Chicago.
- Giddens, A (2009) **The Politics of Climate Change**. Polity Press. Cambridge.
- Global Commission on the Economy and Climate (2014) **Better growth, better climate: The new climate economy report**. Global Commission on the Economy and Climate, London.
- Global Humanitarian Forum (2009) *Climate Change: The anatomy of a silent crisis*. **Human Impact Report**. GHF, Geneva.
- Gramling, C (2015) *Lost and found: Earth's missing heat* in **Science** Vol. 348, no. 6242. pp. 1469-1472.
- Goldstein, Natalie (2010) **Global Warming**. Checkmark books, New York.
- Goodman, J (2009) *From Global Justice to Climate Justice? Justice Ecologism in an Era of Global Warming*. In **New Political Science, Volume 31, Issue 4**. Special Issue: The Changing Face of Political Ideologies in the Global Age. Taylor and Francis Group. Washington, DC.

- Gordon, Jessica. *Inter-American Commission on Human Rights to Hold hearing after Rejecting Inuit Climate Change Petition*. **Sustainable Development Law & Policy, Winter 2007, 55**. American University Washington College of Law. Washington, DC.
- Government of China (2015) **Enhanced Actions on Climate Change: China's intended Nationally Determined Contributions**. Beijing, Government of China.
- Government of China (2012) **China's Submission on Options and Ways for Further Increasing the Level of Ambition**. Beijing. Government of China.
- Government of Brazil (2012) **Statement to the United Nations Framework Convention workshop on equitable access to sustainable development**. Brasilia. Government of Brazil.
- Government of the Maldives (2007) **Male' Declaration on the Human Dimension of Global Climate Change** Small Island States Conference, Male', Maldives, November 13---14, 2007. Available at: [http://www.ciel.org/Publications/Male\\_Declaration\\_Nov07.pdf](http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf).
- Grubb, M., Vrolijk, C., and Brack, D (2001) **The Kyoto Protocol: A guide and assessment**. Earthscan, London.
- Halsnæs, K., P. Shukla, D. Ahuja, G. Akumu, R. Beale, J. Edmonds, C. Gollier, A. Grübler, M. Ha Duong, A. Markandya, M. McFarland, E. Nikitina, T. Sugiyama, A. Villavicencio, J. Zou, (2007) **Framing issues In Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change**. Cambridge, UK. Cambridge University Press. p146.
- Han, G., M. Olsson, K. Hallding and Lunsford, D. (2012) *China's Carbon Emission Trading: An Overview of Current Development* In **FORES Study 2012:1**; Stockholm Environment Institute and Forum for Reforms, Entrepreneurship and Sustainability (FORES), Stockholm.
- Hawken, P (2010). **Blessed Unrest**. New York, Penguin Books.
- Hay, C (2006). *Constructivist institutionalism* in Rhodes, R.; Binder, S.; and Rockman, B. **The Oxford Handbook of Political Institutions**. Oxford University Press, Oxford. pp. 56–74
- Hay, C (2002) **Political Analysis: A critical introduction**. Palgrave, Basingstoke.
- Houghton, J.T., Jenkins, G.J. and Ephraums, J.J. (eds.) (1990) **Climate Change: The IPCC Scientific Assessment: Report prepared for Intergovernmental Panel on Climate Change by Working Group I**. Cambridge University Press, Cambridge, Great Britain, New York, NY, USA and Melbourne, Australia.
- Humphreys, S ed. et al (2010) **Human Rights and Climate Change**. International Council on Human Rights Policy, Geneva.
- International Council on Human Rights Policy (2008). **Climate change and human rights: A rough guide**. ICHRP, Geneva.
- International Organization for Migration (2009) **Migration, Environment and Climate Change: Assessing the evidence**. IOM, Geneva.
- Intergovernmental Panel on Climate Change (IPCC) (2007a) **Climate Change 2007: Synthesis Report**. IPCC, Geneva.
- Intergovernmental Panel on Climate Change (IPCC) (2007b). **Climate Change 2007: Impacts, Adaptation, and Vulnerability**. IPCC, Geneva.
- Intergovernmental Panel on Climate Change (IPCC) (2012) *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change*. Cambridge University Press: Cambridge and New York City.
- Intergovernmental Panel on Climate Change (IPCC) (2013) *Summary for Policymakers*. In **Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change**. Cambridge University Press, Cambridge and New York.
- Intergovernmental Panel on Climate Change (IPCC) (2014) **Climate Change 2014: Impacts, Adaptation, and Vulnerability, Technical Summary**. Cambridge University Press: Cambridge and New York City.

- Joffe, P., Waskow, D., DeAngelis, K., Bevins, W. and Dagnet, Y (2013) *Equity Lessons from Multilateral Regimes for the New Climate Agreement*. **WRI Working Paper**. World Resources Institute, Washington, DC:
- Karl, T., Arguez, A., Huang, B., Lawrimore, J., McMahon, J., Menne, M., Peterson, T., Vose, R., Zhang, HM (2015) *Possible artifacts of data biases in the recent global surface warming hiatus* in **Science**. 26 June 2015: Vol. 348. no. 6242. pp. 1469-1472.
- Kennedy, David (2005) *Challenging Expert Rule: The politics of global governance*. **Sydney Law Review** 5 15. Sydney University Law School, Sydney.
- Keohane, R., and Victor, D. (2010) *The Regime Complex for Climate Change* in **Discussion Paper 2010-33, Harvard Project on International Climate Agreements**, January 2010. Harvard, Cambridge, Massachusetts.
- Kingdon, J (2003) **Agenda, alternatives, and public policy**. Second Edition. Longman classics in political science. Longman, New York.
- Knox, J and Pejan, R (2014) *Human rights principles, climate change and the rights of the child*, in UNICEF Office of Research (2014) **The Challenges of Climate Change: Children on the front line**. Innocenti Insight, UNICEF Office of Research, Florence.
- Knox, J (2009) *Climate Change and Human Rights Law*, **Virginia Journal of International Law**. Volume 50, Issue 1. University of Virginia.
- Krausz, Michael (ed) (2010) **Relativism: A Contemporary Anthology**. Columbia University Press, New York.
- Kuhn, T (2012) **The structure of scientific revolutions**. Fourth Edition. University of Chicago Press, Chicago.
- Limon, M (2010) *Human Rights Obligations and Accountability in the face of Climate Change*. In **Georgia Journal of International and Comparative Law, Volume 38, Number 3** pp543-592. University of Georgia.
- Limon, M., Cameron, E., and Pejan, R (forthcoming 2015) **Creating the Enabling Conditions to Integrate Human Rights into Climate Action**. Mary Robinson Foundation Climate Justice (MRFJ) and the Universal Rights Group (URG), Dublin.
- March, J (1994) **Primer on Decision Making: How Decisions Happen**. The Free Press, New York.
- March, J.; and Olsen, J (1995) **Democratic Governance**. The Free Press, New York.
- Massachusetts et al versus Environmental Protection Agency et al (2007). 22 Ill.549 U.S. 497, 127 S. Ct. 1438, 167 L. Ed. 2d 248, 63 ERC 2057 (2007).
- McInerney-Lankford, Siobhan; Darrow, Mac; Rajamani, Lavanya (2011). **Human Rights and Climate Change: A Review of the International Legal Dimensions**. Washington, DC. The World Bank, p50.
- Melillo, J., Richmond T., and Yohe, G (Eds.) (2014): **Climate Change Impacts in the United States: The Third National Climate Assessment**. U.S. Global Change Research Program. U.S. Government Printing Office. Washington, DC.
- Mercer (2011) **Climate Change Scenarios—Implications for Strategic Asset Allocation**. Mercer LLC, Carbon Trust, and International Finance Corporation: New York City.
- Miles, M., and Hubberman, M (1994) **Qualitative data analysis**. Second Edition. Sage Publications, London.
- Moore, C (2013) **Margaret Thatcher: The authorized biography from Grantham to the Falklands**. Alfred A. Knopf. New York.
- Nakhooda, S., Fransen, T., Kuramochi, T., Caravani, A., Prizzon, A., Shimizu, N., Tilley, H., Halimanjaya, A., and Welham, B. (2013) **Mobilizing International Climate Finance Lessons from the Fast-Start Finance Period**. Overseas Development Institute (ODI), World Resources Institute (WRI), Institute for Global Environmental Strategies. Washington, DC.
- Nelson G.C. and van der Mensbrugge, D (2009) **Climate Change Impact on Agriculture and Costs of Adaptation**. Washington DC, International Food Policy Research Institute.
- Office of the High Commissioner for Human Rights (2014). **An Open Letter from Special Procedures mandate-holders of the Human Rights Council to the State Parties to the UN Framework Convention on Climate Change on the occasion of the meeting of the Ad Hoc Working Group on the Durban Platform for Enhanced Action in**

Bonn (20-25 October 2014). OHCHR, Geneva. Available from: [http://www.ohchr.org/Documents/HRBodies/SP/SP\\_To\\_UNFCCC.pdf](http://www.ohchr.org/Documents/HRBodies/SP/SP_To_UNFCCC.pdf)

- Office of the U.N. High Commissioner for Human Rights [OHCHR] (2009). **Report of the Office of the U.N. High Commissioner for Human Rights on the Relationship between human rights and climate change**. UN Doc. A/HRC/10/61. Geneva.
- Oreskes, N (2004) *The scientific consensus on global warming*. **Science**, Volume 306, No 5702, p1686.
- Oxfam International (2008) **Rethinking Disasters: Why death and destruction is not nature's fault but human failure**. Oxfam, Oxford.
- Pedersen, O.W. (2011) *The Janus---Head of Human Rights and Climate Change: Adaptation and Mitigation*. **Nordic Journal of International Law**, volume 403.
- Pierson, P (2000) *Increasing returns, path dependence, and the study of politics* in **The American Political Science Review**; Jun 2000; 94, 2.
- Pooley, Eric (2010) **The Climate War: True believers, power brokers, and the fight to save the Earth**. Hyperion, New York. p9
- Pope Francis (2015) **Encyclical Letter Laudato Si' of the Holy Father Francis on care for our common home**. Vatican City, Vatican Press.
- Popper, K (2002) **The Logic of scientific discovery**. Routledge, London.
- Powell, J (2012) *Why climate deniers have no scientific credibility - in one pie chart*. **Desmogblog.com**.
- Rajamani, Lavanya (2012) *The changing fortunes of differential treatment in the evolution of international environmental law*. **International Affairs 88: 3 pp605–623**. London. The Royal Institute of International Affairs. Blackwell Publishing, p618.
- Rawls, J. (1971) **A theory of justice**. Cambridge, MA: Harvard University Press.
- Romani, M; Rydge J; and Stern, N (2012) **Recklessly slow or a rapid transition to a low-carbon economy? Time to decide**. London. Centre for Climate Change Economics and Policy / Grantham Research Institute on Climate Change and the Environment, p12.
- Rudestam, K., and Newton, R (2007) **Surviving your dissertation: A comprehensive guide to content and process**. Sage Publications, London.
- Scientific Expert Group on Climate Change (SEG) (2007) **Confronting Climate Change: Avoiding the Unmanageable and Managing the Unavoidable** [Rosina M. Bierbaum, John P. Holdren, Michael C. MacCracken, Richard H. Moss, and Peter H. Raven (eds.)]. Report prepared for the United Nations Commission on Sustainable Development. Sigma Xi, Research Triangle Park, NC, and the United Nations Foundation, Washington, DC, 144 pp.
- Seale, C (2004) **Researching society and culture**. Second Edition. Sage Publications. London.
- Sen, A. (2009) **The Idea of Justice**. London. Penguin Books.
- Sen, A. (2004) *Elements of a Theory of Human Rights*. **Philosophy and Public Affairs; Fall 2004; 32, 4; 315-356**.
- Sen, A. (2000) **Development as Freedom**. London. Anchor Books.
- Senate Resolution (1997) *Expressing the sense of the Senate regarding the conditions for the United States becoming a signatory to any international agreement on greenhouse gas emissions under the United Nations*. **S. RES. 98**. Washington, DC. United States Senate.
- Sheffield, P. and Landrigan, P (2011) **Global Climate Change and Children's Health: Threats and Strategies for Prevention**. **Environmental Health Perspectives**. 119(3): pp291–298. National Institute of Environmental Health Science. Washington, DC.
- Silver, Nate (2012) **The Signal and the Noise: Why So Many Predictions Fail — but Some Don't**. New York. Penguin Press.

- Steiner, H (1998) *Social Rights and Economic Development: Converging Discourses?* In **Buffalo Human Rights Law Review**. Volume 4, pp 25-42.
- Stern, Nicholas (2009) **The Global Deal: Climate change and the creation of a new era of progress and prosperity**. Public Affairs, New York.
- Stern, N (2006). *The Economics of Climate Change: The Stern Review*. Cambridge: Cambridge University Press.
- Stern, T (2011) *Remarks as prepared by Todd Stern, Special Envoy for Climate Change* at the **MIT Earth Week Colloquium** in Boston, April 21, 2011.
- Stephens, P (2010) *Applying Human Rights Norms to Climate Change: The Elusive Remedy*, **Colorado. Journal of International Environmental Law and Policy**, volume 49.
- Teddle, C., and Tashakkori, A (2009) **Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences**. Sage Publications, London.
- TEEB (2010) **The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB**. UNEP, New York.
- Terry, G (2009) *No climate justice without gender justice: an overview of the issues*. **Gender & Development, Volume 17, Issue 1. Special Issue: Climate changes and climate justice**. Routledge, London.
- Townshend, Terry, et al., eds. (2013) **The GLOBE Climate Legislation Study: A Review of Climate Change Legislation in 33 Countries. 3rd edition**. Global Legislators Organisation (GLOBE) International: London.
- United Nations (1987) **The Montreal Protocol on Substances that Deplete the Ozone Layer**. United Nations, New York.
- United Nations (1992a) **Framework Convention on Climate Change**. FCCC/INFORMAL/84. United Nations, New York.
- United Nations (1992b) **Rio Declaration**. New York: United Nations.
- United Nations (1972) **Declaration of the United Nations Conference on the Human Environment**. United Nations, New York.
- United Nations. 1966a. **International Covenant on Economic, Social and Cultural Rights**. United Nations, New York.
- United Nations Development Programme (UNDP) (2005) **Sustaining the Environment to Fight Poverty and Achieve the MDGs: The Economic Case and Priorities for Action**. UNDP, New York City.
- United Nations Environment Programme (UNEP) (2012). **The Emissions Gap Report 2012**. UNEP, Nairobi.
- United Nations Environment Programme (UNEP) (2011). **Bridging the Emissions Gap**. United Nations Environment Programme (UNEP), Nairobi.
- United Nations Environment Programme (UNEP) (2010) **The Emissions Gap Report: Are the Copenhagen Accord Pledges Sufficient to Limit Global Warming to 2°C or 1.5°C?** UNEP, Nairobi.
- United Nations Framework Convention on Climate Change (UNFCCC) (2015) **Adoption of the Paris Agreement. Document FCCC/CP/2015/L.9/Rev.1**. UNFCCC, Bonn.
- United Nations Framework Convention on Climate Change (UNFCCC) (2014) **Decision -/CP.20. Lima call for climate action**. UNFCCC, Bonn.
- United Nations Framework Convention on Climate Change (UNFCCC) (2012) **Decision 23/CP.18: Promoting gender balance and improving the participation of women in UNFCCC negotiations and in the representation of Parties in bodies established pursuant to the Convention or the Kyoto Protocol. Document: FCCC/CP/2012/8/Add.3**. United Nations. New York.
- United Nations Framework Convention on Climate Change (2012) **Addendum Part Two: Action taken by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its eighth session. Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its eighth session, held in Doha from 26 November to 8 December 2012**. FCCC/KP/CMP/2012/13/Add.1. United Nations.



- United Nations Framework Convention on Climate Change (2012) **Report on the workshop on equitable access to sustainable development**. FCCC/AWGLCA/2012/INF.3/Rev.1 United Nations. Bonn.
- United Nations Framework Convention on Climate Change (UNFCCC) (2011) **Decision 1/CP.17, Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action** (FCCC/CP/2011/9/Add.1). United Nations, New York.
- United Nations Framework Convention on Climate Change (2010) **Decision 1/CP.16. The Cancun Agreements: Outcome of the Work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention** (UN Doc. FCCC/CP/2010/7/Add.1). United Nations, New York.
- United Nations Framework Convention on Climate Change (2009) **Decision 2/CP.15. The Copenhagen Accord** (UN Doc. FCCC/CP/2009/11/Add.1). United Nations, New York.
- United Nations Framework Convention on Climate Change (UNFCCC) (2007) **Decision 1/CP.13 The Bali Action Plan**. FCCC/CP/2007/6/Add.1. Bonn, United Nations.
- United Nations Human Rights Council (UNHRC) (2009). **Res. 10/4, U.N. Doc. A/HRC/10/L.30**. UNHRC, Geneva.
- United Nations Human Rights Council (UNHRC) (2008). **Res. 7/23 on human rights and climate change, U.N. Doc. A/HRC/7/78**. UNHRC, Geneva.
- United Nations Office of the High Commissioner for Human Rights (UNOHCHR) (2014) **An Open Letter from Special Procedures mandate-holders of the Human Rights Council to the State Parties to the UN Framework Convention on Climate Change**. Office of the United Nations High Commissioner for Human Rights. UNOHCHR, Geneva.
- University of Cambridge (2013) **The UN Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5): Implications for Business**. Cambridge Judge Business School and Cambridge Programme for Sustainability Leadership. Cambridge. UK.
- US Government (2008) **Submission of the US to OHCHR Report. Observations of the United States of America on the relationship between climate change and human rights**. USG, Washington, DC.
- Uvin, P (2004) **Human Rights and Development**. Bloomfield: Kumarian Press.
- Walliman, N (2011) **Research Methods: The Basics**. Routledge, London.
- Walliman, N (2011) **Your research project**. Third Edition. Sage Publications, London.
- Warner, K., Hamza, M., Oliver-Smith, A., Renaud, F., and Julca, A (2010) **Climate change, environmental degradation and migration**. *Natural Hazards, December 2010, Volume 55, Issue 3*, pp 689-715. Springer, Netherlands.
- Washington, H., and Cook, J. (2011) **Climate Change Denial: Heads in the Sand**. Earthscan, London.
- Waskow, D., Bevins, W., Northrop, E., Weatherer, L., Joffe, P., Klinsky, S., Kutter, P (2014) **Building Climate Equity: Creating a New Approach from the Ground Up**. World Resources Institute, Washington, DC.
- We Mean Business (2014) **The Climate Has Changed**. We Mean Business, London and New York.
- Weischer, L., Morgan, J., and Patel, M (2012) *Climate Clubs: Can Small Groups of Countries make a Big Difference in Addressing Climate Change? Review of European Community & International Environmental Law. Volume 21, Issue 3*, pages 177–192, November 2012.
- World Bank (2012) **Turn Down the Heat: Why a 4-Degree Celsius Warmer World Must Be Avoided**. International Bank for Reconstruction and Development: Washington, D.C.
- World Economic Forum (WEF) (2013) **Global Risks 2013, 8th Edition**. WEF, Geneva.
- World Health Organization (2011) **Gender Climate Change and Health**. WHO, Geneva.
- World Meteorological Organization (WMO) (1989) *Proceedings of the World Conference on the Changing Atmosphere: Implications for Global Security*, WMO, Toronto.



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