



CLIMATE JUSTICE: EQUITY AND JUSTICE INFORMING A NEW CLIMATE AGREEMENT

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EXECUTIVE SUMMARY

This paper explores the role of equity in the climate negotiations. It establishes why climate change is an issue of injustice by examining the environmental challenges posed by climate change and links those challenges to socio-ecological and economic systems that undermine the rights of people, especially the poor, marginalized, and vulnerable.

The paper then analyzes the role of justice and equity in designing a new climate agreement by looking at how equity has been treated to now in the climate negotiations. It examines several perspectives on key equity issues to highlight those issues that must be addressed in the new agreement.

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.

This paper is the first publication of the Climate Justice Dialogue, an initiative led by the Mary Robison Foundation — Climate Justice and the World Resources Institute. The initiative seeks to develop creative thinking and mobilize demand for a people-centered climate agreement in 2015.

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INTRODUCTION

*“Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly.”*¹

This paper draws on existing research to examine the links among justice, equity, and climate change with a view to assessing how they can inform a fair and effective approach to combatting this urgent global problem. It is a contribution to the work of the *Climate Justice Dialogue*,² an initiative led by the Mary Robinson Foundation – Climate Justice and the World Resources Institute, which is developing creative thinking and mobilizing demand for a people-centered climate agreement in 2015. Through the Dialogue the concept of climate justice will be further explored and used to develop narratives and inform approaches to address equity in a new climate agreement. The purpose of this paper is to:

- i. establish why climate change is an issue of (in)justice;
- ii. analyze the role of justice and equity in designing a new climate agreement that will limit global average temperature increase to 2°C above pre-industrial levels;³ and
- iii. explore the potential of climate justice narratives in mobilizing domestic constituencies of demand for climate action.

It is now over 20 years since the adoption of the United Nations Framework Convention on Climate Change (UNFCCC), which is designed to stabilize “greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” Despite important steps recently in the international negotiations — and notwithstanding the considerable efforts undertaken by some countries domestically — there remains a significant gap between where we are today and where we need to be by the end of this decisive decade if we are to avoid dangerous climate change.

The impacts of climate change are already being felt,⁴ especially by the poorest and most vulnerable who have contributed least to the causes of the problem. This is the injustice at the core of the climate problem: Those least responsible are worst affected. While the international community debates the steps to take to solve the problem — the scale of the impacts and the numbers of people affected increase. This is the argument behind climate

justice and a driver for a more urgent response to the global problem, in a way that treats all people and countries fairly and ultimately prevents dangerous and irreversible climate change.

Meeting in Durban, South Africa in late 2011, the international community launched a new round of talks designed to strengthen the multilateral, rules-based system and agree to a new climate agreement by 2015. There is a pressing need to infuse these new negotiations under the so-called Durban Platform with renewed urgency. Aside from the scientific imperative to strengthen collective action in the face of climate change there is also a persuasive political imperative. The UNFCCC is increasingly seen as a global process in serious difficulty — lacking in trust, devoid of momentum, and unable to generate the necessary incentives to catalyze the transition to low-carbon development. Finding a new way to apply equity — the longstanding principle that determines the contribution countries make to dealing with climate change — is seen as pivotal to unlocking the potential of the UNFCCC. The application of this principle, which encompasses Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC), is central to the realization of climate justice through a new climate agreement.

The **first section** of this paper establishes climate change as an issue of justice. We argue that climate change is not just an environmental challenge but also fundamentally a threat to socio-ecological and economic systems that undermines the realization of rights; involves asymmetrical impacts on the poor, marginalized, and vulnerable; and places a disproportionate burden on developing countries.

The **second section** of the paper examines how the UNFCCC has sought to deal with issues of CBDR-RC and the two aspects of equity: intragenerational and intergenerational equity. We contend that the manner in which these principles are applied in the new climate agreement will determine the effectiveness and fairness of the climate regime over the coming decades. We maintain that the Durban Platform represents a window of opportunity to establish a new and more effective approach to applying the principle of equity in practice. Our argument is that the debate over equity has failed so far to enable the level of cooperative commitment needed to hold global temperature rises below the 2°C temperature target. This in turn represents an injustice as it risks undermining vital ecosystems, the services they provide, and the communities

who depend on them for food, water, jobs, homes, health, security, and human rights, now and in the future.

In the **third section** we argue in favor of climate justice 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 recent years a variety of social movements have emerged across the globe with impacts on our global political discourse. 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. We will explore what lessons the climate community can harvest from these new social movements in the hope of creating a climate justice movement that can elevate climate change to the top of the political agenda.

1. CLIMATE CHANGE - AN ISSUE OF (IN)JUSTICE

1.1 Climate change impacts

The landmark Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) concluded that climate change is “unequivocal,” “accelerating,” and “very likely human induced.”⁵ At the time the best available science predicted increases in mean global temperatures in the range of 2°C by the end of the century due to growing concentrations of greenhouse gases with potentially “dangerous” consequences.⁶ Six years later this seems like a gross underestimate. A recent report for the World Bank written by the Potsdam Institute for Climate Impact Research and Climate Analytics estimates warming in the range of 4°C at the end of the century if the global community fails to act on climate change.⁷ The discrepancy is caused by the growing “emissions gap” — the difference between the greenhouse gas reductions countries have pledged and the levels of emissions consistent with holding global temperature rises below 2°C above pre-industrial levels.⁸ The implications for socio-ecological and socio-economic systems are significant.

Ecosystems and biodiversity are early casualties of global warming. The International Union for Conservation of Nature (IUCN) estimates that up to 35% of the world’s

bird species, 52% of the amphibian species, and 71% of the coral reef systems display traits that make them potentially susceptible to climate change including bleaching events, ocean acidification, and sea-level rise.⁹ The impacts on coral reef systems could have devastating consequences for dependent species as the reefs provide a critical habitat to approximately 25% of all marine species.¹⁰ The Caribbean has the largest proportion of corals in high extinction risk categories, but reefs in the Indian Ocean and the Pacific are also likely to be decimated.¹¹

According to the March 2012 Intergovernmental Panel on Climate Change (IPCC) *Special Report on Managing the Risks of Extreme Events*, climate change is reinforcing the intensity and frequency of extreme weather events including floods, droughts, tornadoes, tropical storms, and heat waves.¹² As population expansion and consolidation continues, and as growing numbers of people depend on fragile lands for their homes and resources, the number of people affected by extreme weather is also likely to increase.¹³ According to the *World Disasters Report*, the number of people affected by disasters is up from 740 million in the 1970s to over 2.5 billion in the first decade of the 21st Century.¹⁴

The World Bank’s 4°C report warns that warming of this magnitude will likely lead to a sea-level rise of 0.5 to 1 meter, and possibly more, by 2100; while limiting warming to 2°C would likely reduce sea-level rise by about 20 cm by 2100 compared to a 4°C world.¹⁵

1.2 A human tragedy in the making

Climate change is far more than an environmental challenge. It is a profoundly human issue with immediate and far-reaching implications for jobs, homes, health, food, and lives. As a result, the United Nations Development Programme (UNDP) has described climate change as a “human tragedy in the making.”¹⁶ It is also increasingly seen as a justice issue as climate change undermines the realization of a host of internationally recognized human rights, has asymmetrical impacts on the poor and vulnerable, and increasingly requires disproportionate action from developing countries. As the author Amartya Sen (2009) has pointed out, “A calamity would be a case of injustice only if it could 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.”¹⁷ The international community accepts that dangerous climate change is upon

us, understands the causes, recognizes what steps need to be taken to change course, and yet persists in delaying action on the scale required. The results undermine human development, compromise human rights, and result in injustice.

The livelihoods of roughly 450 million of the world's poorest people are entirely dependent on managed ecosystem services;¹⁸ about 2.6 billion people depend on agriculture for their livelihoods;¹⁹ and the economic gains from tourism and fisheries in coral reefs, many of which are off the coasts of developing countries in the Caribbean, the Pacific Ocean and the Indian Ocean, are estimated to be worth up to USD 30 billion per year.²⁰ According to the Global Humanitarian Forum, economic projections based on an update of the model used in the Stern Review (2009), the impacts of climate change add up to an economic loss of about US\$125 billion per year — more than the individual GDP of 73% of the world's countries.²¹ By 2030, the economic losses due to climate change will have almost trebled to US\$340 billion annually.²² These statistics mask the significant impacts on lives and livelihoods contributing to increased hardship at the household level.²³

Worsening environmental conditions combined with political and financial instability affects where people can live. The United Nations special rapporteur on the human rights of migrants estimates the number of people displaced by climate change to be between 50 to 250 million by the year 2050.²⁴ According to the same source, climate change may induce temporary, circular, and permanent migration movements, with those affected moving internally or internationally.²⁵ Migration can then become a catalyst for social unrest if increased population density in the host community perpetuates resource scarcity. Bangladesh is often cited as a worst-case scenario. More than 70 million people live in areas that could be affected by extreme weather events, prolonged flooding, and sea-level rise.²⁶ A mass-migration of this scale would be unprecedented. The consequences of such a movement of people into neighboring lands that are already overstressed are uncertain but potentially highly volatile.

Climate change also has direct and indirect impacts on human health. Vector-borne diseases such as malaria, dengue fever, and yellow fever are sensitive to temperature, humidity, and rainfall patterns. As temperature and precipitation patterns alter as a result of climate change, these diseases will spread to areas traditionally outside the disease vectors.²⁷ Anantram Kadambari (2006) argues

that exposure to extreme weather events such as heat waves, floods, and droughts can also affect human health in a variety of ways including worsening malnutrition, heat stroke, and the spread of communicable diseases.²⁸ Perhaps the most fearsome health impacts of climate change are drawn from studies of malaria. One recent study puts the scale of the population at increased risk of contracting malaria in 2050 at around 200 million.²⁹

Food security and hunger are fast emerging as key concerns for governments alarmed by the rate and scale of climate change. According to the World Food Programme, climate change has emerged as a hunger risk multiplier and as a result food security is a priority concern in most of the countries that have developed National Adaptation Programmes of Action (NAPAs). Of the 49 NAPAs developed to date, 78% identify food security as a priority area of intervention.³⁰ With the world's population set to reach 9 billion by 2050,³¹ agricultural production will need to increase by 60% in order to meet projected demand³² if current patterns and levels of consumption in the 'rich' parts of the world continue and expand, and if food wastage at farm and household level is not addressed. This challenge is exacerbated by a number of climate change-related factors that will have an impact on food security, including: declining agricultural productivity; more frequent, erratic and intense climate- and weather-related events; accelerated land degradation; reduced water availability and deteriorating sanitation; increased conflicts over scarce resources; and increased urbanization, migration, and displacement.³³

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% by 2050.³⁴ Temperature rises beyond 2°C are predicted to increase the number of people at risk of poverty and hunger, leaving an additional 600 million facing acute malnutrition by 2080.³⁵ This at a time when demand for food, water, and energy will grow by approximately 35%, 40%, and 50% respectively owing to an increase in the global population, and the consumption patterns "of an expanding middle class."³⁶

1.3 Undermining the realization of rights

Beyond the impacts on human development, climate change is also a justice issue because the diverse and far-reaching impacts undermine the realization of a range of human rights. For example the human right to adequate food is recognized in several instruments under

international law³⁷ and is undermined by the impacts of climate change on food production and access to adequate nutritious food. Climate change disproportionately threatens the food supplies of the vulnerable due to changing seasons, less predictable rainfall, droughts, and floods. This results in greater pressure on natural resources and in particular drives speculation on farmland for commercial production.³⁸ Policies to reduce greenhouse gas emissions, for example biofuel policies, can also threaten the right to food.³⁹

Climate change also undermines the right to health as recognized in numerous international instruments.⁴⁰ There are two components of the links between climate change and the right to health. First, there is a need to address poor health (in conjunction with food production and accessibility to safe drinking water) to reduce the vulnerability of those affected by the impacts of climate change. Poor health increases vulnerability and compounds exposure to climate risks. Second, increasing instances of malaria, dengue fever, water-borne disease, and malnutrition, as well as the direct impacts of heat waves and extreme cold, will undoubtedly place additional strains on the healthcare system in many countries making it more difficult for governments to meet the needs of their citizens.

Climate change also affects the right to adequate housing,⁴¹ especially for those living in low-lying coastal areas or places affected by extreme weather events that trigger displacement. The Office of the High Commissioner for Human Rights (OHCHR) argues that States are responsible for ensuring that settlements are adequately protected from dangerous weather.⁴² If extreme weather events force the displacement of the people, the State must, under international law, provide adequate shelter. As sea-levels continue to rise, many coastal settlements will be destroyed, forcing millions of people to migrate or move to expanding urban slums, where additional human rights will be undermined.

The international community has recognized that access to safe drinking water and sanitation must be considered within a human rights framework. Such access is explicitly referred to, for instance, in several conventions and mandates.⁴³ As with food, water is a basic necessity to sustain life and a prerequisite for the realization of other human rights. The impacts of climate change on glacial melt, the frequency of drought and changes in rainfall predictability and intensity all affect the availability and supply of water.

By 2020, between 75 and 250 million people in Africa are projected to be exposed to increased water stress due to climate change, particularly in the arid regions of sub-Saharan Africa⁴⁴ and the rangeland systems in parts of eastern Africa. Coupled with increased demand, this will adversely affect livelihoods and increase stresses on water systems, further accentuating challenges related to sanitation, hunger, undernutrition, and poor health.

The Human Rights Council recognized the impacts of climate change on human rights in 2008, acknowledging that climate change “poses an immediate and far-reaching threat to people and communities around the world.”⁴⁵ This and subsequent resolutions have been reflected in the UNFCCC process, and in Cancun in 2010, the Conference of the Parties emphasized “that Parties should, in all climate change-related actions, fully respect human rights.”⁴⁶ If implemented effectively this language can play a role in supporting a rights-based approach to climate change that is consistent with climate justice.

Although climate impacts have garnered the bulk of attention in the emerging discourse linking human rights and climate change, there is a growing body of work stressing the potential implications of policy responses. Marcos Orellana (2009) of the Center for International Environmental Law details how various mitigation policies impact human rights. 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 on biofuel plantations affects neighboring communities and/or surrounding crops. The application of pesticides without adequate safety measures may also compromise workers’ rights.⁴⁷ 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.⁴⁸

The table that follows details the nexus between climate and justice by presenting the relationship between climate change impacts as projected by the IPCC Fourth Assessment Report and other scientific assessments over the past six years; related impacts on human/social systems detailed by, for example, United Nations agencies dealing with food, water, development, and health; the human rights implications of these human/social impacts; and the treaty provisions covering these human rights.⁴⁹ These relationships are neither singular nor linear. An increase in the frequency and intensity of extreme weather

events has myriad implications for human and social systems and undermines the realization of a broad range of internationally recognized human rights. Similarly the right to an adequate standard of living is captured in a range of international and domestic human rights instruments, often with slight variation in the way the right is written. Consequently this table, rather than presenting direct cause and effect, captures a universe of relationships between climate and rights.

1.4 Asymmetrical impacts on the poor, marginalized and vulnerable

Climate change contributes to injustice as those who will be hit first and hardest by climate impacts have contributed least to the problem. The most vulnerable communities are those who already suffer from deprivation, exclusion and inequality – with the impacts of climate change constituting a “compound injustice.”⁵⁰ Climate change will exacerbate their poverty and push them closer to the margins. Sujatha Byravan and Sudhir Chella Rajan (2010) have labeled this phenomenon “asymmetrical impacts;” implying that there is an unequal burden on the poor, which is “all the more unfair because the poor played only a minor role, if any, in causing the climate problem, and certainly did not reap the benefits of fossil-fuel intensive economic development.”⁵¹ S.M. Gardiner and L. Hartzell-Nichols (2012) call this “skewed vulnerabilities” and point out that “this seems to be seriously unfair and casts a notable shadow over both practical and theoretic efforts to secure global cooperation.”⁵²

Neil Adger (2001) argues that the impacts of observed and future climate change are and will be spatially and socially differentiated,⁵³ contributing in both cases to disproportionate impacts on the poorest. From a **spatial perspective** the distribution of impacts is likely to lean toward regions with the least capacity to adapt. Studies suggest that Africa will be hit hardest with climate damages in the order of several percentage points of gross domestic product at a 2°C increase in global mean temperature rise.⁵⁴ In Asia about 1 billion people face risks from reduced agricultural yields, reduced water supplies, and increases in extreme weather events.⁵⁵ A 2007 report prepared by the New Economics Foundation predicts that the “human drama of climate change will largely be played out in Asia, where over 60% of the world’s population live[s]. Over half of those live near the coast, making them directly vulnerable to sea-level rise.”⁵⁶ In the case of the Maldives, where three-quarters of the land is no more

than one meter above sea level,⁵⁷ climate models predict the death of the nation by the end of the century.

The world’s Small Island Developing States (SIDS) are often cited as the most vulnerable countries to climate impacts and the first nations on Earth to face critical climate change thresholds.⁵⁸ SIDS are particularly vulnerable because of their small size, remoteness, geographical dispersion, and exposure to natural disasters. They also have fragile ecosystems, face constraints on transport and communication, lack of natural resources, and have limited freshwater supply. According to the New Economics Foundation, in the Caribbean the increased strength of storms and hurricanes and the surge in their destructive forces have affected hundreds of thousands of victims and led to multi-million dollar damages.⁶⁰ In 2004, Grenada, an island considered to be outside the hurricane belt, was devastated when Hurricane Ivan struck, destroying over 90% of the country’s infrastructure and housing stock and causing over \$800 million in damages, the equivalent of 200% of Grenada’s GDP.⁶¹ This spatial differentiation means that some countries are more vulnerable than others to the impacts of climate change, in particular LDCs and SIDS.

In terms of **social differentiation**, the world’s poor, particularly women and children, are especially vulnerable to climate change. The poor, vulnerable, and marginalized have least capacity to cope with the impacts of climate change and whether they live in developed or developing countries they are most affected. As a result, the Inuit of the Canadian Arctic,⁶² slum dwellers in New Delhi, low income families in the United Kingdom,⁶³ and small scale farmers in Malawi are all disproportionately vulnerable to climate change. They lack the assets that would enable them to cope with climate-related crises and adapt to climate change. They are most exposed to the health risks arising from pollution, poor sanitation and unclean water. And they also rely most on natural resources, often deriving up to two-thirds of their income directly from those resources and spending up to three-quarters of their household incomes on food and other basic needs.⁶⁵ 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.

Given existing gender inequalities and development gaps, climate change ultimately places a greater burden on women. Men and women are affected by climate change in

Table 1 | **Climate Change Impacts and Human Rights**

CLIMATE CHANGE IMPACTS PROJECTED BY THE IPCC AND OTHER SCIENTIFIC ASSESSMENTS	IMPACTS ON HUMAN / SOCIAL SYSTEMS	RIGHTS IMPLICATED	PROVISIONS IN CORE INTERNATIONAL CONVENTIONS
<p>Temperature rises The IPCC projects a range of temperature increase scenarios, each of which is dependent on the level of CO₂(e) in the atmosphere. A recent report for the World Bank written by the Potsdam Institute for Climate Impact Research and Climate Analytics estimates warming in the range of 4°C at the end of the century if the global community fails to act on climate change.</p>	<p>Increased health risks/fatalities from diseases and natural disasters</p> <p>Increased water Insecurity</p>	<p>Life</p> <p>Poverty, adequate standard of living, and means of subsistence</p>	<p>e.g. Art 3 UDHR (1948) “Everyone has the right to life, liberty, and security of person.” / Art 6 International Covenant on Civil and Political Rights (1966) — “Every human being has the inherent right to life. This right shall be protected by law...”</p>
<p>Risks of extreme weather events According to the March 2012 IPCC Special Report on Managing the Risks of Extreme Events, climate change is reinforcing the intensity and frequency of extreme weather events including floods, droughts, tornadoes, tropical storms, and heatwaves.</p>	<p>Loss of livelihoods</p> <p>Changes in agricultural productivity and food production</p>	<p>Food and hunger</p> <p>Health</p> <p>Water</p> <p>Culture</p>	<p>e.g. Art 25 Universal Declaration of Human Rights — “Everyone has the right to a standard of living adequate for the health of himself and of his family, including food, clothing, housing and medical care and necessary social services.” / Art 11 International Covenant on Economic Social and Cultural Rights (1966) — Everyone has a right “to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions.”</p>
<p>Threats to unique ecosystems The IUCN estimates that up to 35% of the world’s bird species, 52% of the amphibian species, and 71% of the coral reef systems display traits that make them potentially susceptible to climate change including bleaching events, ocean acidification, and sea-level rise.</p>	<p>Threats to security/societal cohesion</p> <p>Effects on human settlements, land and property leading to migration and displacement</p>	<p>Property</p> <p>Adequate and secure housing</p> <p>Education</p> <p>Property</p>	<p>e.g. Art 11 International Covenant on Economic Social and Cultural Rights (1966) — “The States Parties to the present Covenant, recognizing the fundamental right of everyone to be free from hunger.”</p>
<p>Changes in precipitation and distribution of water. By 2020, between 75 million and 250 million people are projected to be exposed to increased water stress due to climate change. Drought affected areas will likely increase. Heavy precipitation events, which are very likely to increase in frequency, will augment flood risk.</p>	<p>Impacts on political/public services</p>	<p>Women’s, children’s, and indigenous people’s rights</p> <p>Self determination</p>	<p>e.g. Art 1.2 International Covenant on Civil and Political Rights (1966) — “In no case may a people be deprived of its own means of subsistence.”</p>
<p>Threats to biodiversity Approximately 20% to 30% of plant and animal species are likely to be at increased risk of extinction if global average temperature exceeds 1.5°C to 2.5°C. There are projected to be major changes in ecosystem structure and function, species ecological interactions, and species geographical ranges, with predominantly negative consequences for biodiversity, and ecosystems.</p>	<p>Damage to vital Infrastructure and public utilities</p> <p>Loss of cultural integrity</p> <p>Decline in natural systems services</p>		<p>e.g. Art 12 International Covenant on Economic, Social, and Cultural Rights (1966) — “The State Parties... recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.”</p>
<p>Sea-level rises, flooding and storm surges The World Bank 4°C report warns that warming of this magnitude will likely lead to a sea-level rise of 0.5 to 1 meter, and possibly more, by 2100; while limiting warming to 2°C would likely reduce sea-level rise by about 20 cm by 2100 compared to a 4°C world.</p>	<p>Distribution of impacts (vulnerable, poor, and marginalized are hit first and hardest)</p>		<p>e.g. Art 14 Convention on the Elimination of All Forms of Discrimination Against Women (1979) — “State Parties will take into account the particular problems faced by rural women...”</p>
<p>Large scale singularities Climate impacts could lead to the melting of the Greenland/Antarctic ice-shelves, release of methane in Siberia, and the halting of the Atlantic conveyor belt.</p>			<p>e.g. Art 6 Convention on the Rights of the Child (1989) — “State Parties shall ensure to the maximum possible extent the survival and development of the child.”</p>

different ways, because the societal and cultural roles and responsibilities made on them by families and communities are very different. For example, where women are the primary food producers and providers of water and cooking fuel for their families, they have greater responsibility for family and community welfare. Women 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.⁶⁶ 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, and social status exacerbated their vulnerability to this extreme weather event.⁶⁷

Women's economic contribution, which is central to the development of countries, is also central to tackling climate change. Women are powerful agents of change and are taking action at global, national, and community levels. The role of women in the institutions, mechanisms, funds, and processes that address and govern the impacts of climate change is critical to ensuring an equitable response.

1.5 The “Brutal Arithmetic” — a disproportionate burden on developing countries

Added to the injustice of asymmetrical impacts is the fact that those who have done least to cause the problem are now being asked to take on a large part of the solution. In December 2012, economist Lord Nicholas Stern produced a paper describing the “brutal arithmetic” of climate change — the simple and unavoidable fact that bold and urgent emissions reductions by all countries will be necessary to hold global mean temperature rises below 2°C above pre-industrial levels.⁶⁸ Developed countries, which house only one-seventh of the global population, are the source of around 70% of the cumulative greenhouse gas emissions produced since 1950; however this trend is changing rapidly. As Stern points out, if developing countries see emissions continue to increase at their present annual level of 3% or 4% in 20 years they will constitute more than 70% of global emissions.⁶⁹ Developing countries, many of which are battling crippling poverty and inequality at home, are being told that the traditional high-carbon pathway to wealth and prosperity is off-limits and that they too will need to embrace aggressive mitigation actions.⁷⁰

The impossible choice handed to developing countries is a glaring injustice in the international climate negotiations

— the product of two decades of missed opportunities in the UNFCCC, inadequate domestic action in industrialized countries, and substantial geopolitical changes in BASIC⁷¹ (which includes Brazil, South Africa, India, and China) countries. As Byravan and others (2010) have pointed out this translates to a simple equation: The industrialized North has already occupied the globe's available carbon budget and so the poorer South will need a different development model if the planet's climate is to stay within sustainable limits.⁷² Most worrying of all, the time available to construct this new model of development is short.

1.6 The development challenge

The challenge facing developing countries, whether least developed or middle income, is how to develop and lift people out of poverty while, at the same time, taking action on climate change. The model of development on which the current global economy is built is dependent on fossil fuels. The middle class aspiration of the people across the world is based on consumerism and as a result on fossil fuels. Therefore, developing countries, in particular the BASIC countries face a genuine dilemma. Although internationally there is a focus on the role they should play to combat climate change, domestically the priority is on poverty alleviation and growth. Likewise there is a mismatch between the need for action to mitigate climate change (reduce emissions) and the need to manage and cope with climate impacts (adaptation). For many low and middle income countries, their climate change priority is adaptation and managing the impacts of climate change, notwithstanding the need to participate in global action to reduce emissions.⁷³

This reality throws another perspective on the application of the principle of equity. How can countries do what is fair at home while at the same time contributing equitably to a global regime? How can countries and people fulfill their right to development while reducing overall emissions of greenhouse gases? Some argue that development requires (at least in the short to medium term) an increase in emissions as growth is still largely based on the consumption of fossil fuels. However, in recent years countries have started to develop policies that marry growth and low emissions. In Ethiopia for example, the national climate change strategy focuses on eradicating poverty through green growth,⁷⁴ which addresses low carbon development and resilience in an integrated way. In Costa Rica the National Climate Change Strategy sets the goal of becoming a “Climate Neutral” economy by 2021.⁷⁵ The objectives include a sustainable development strategy

with low carbon emission pathway; adaptation to climate change impacts; enhancing the country's competitiveness; and international leadership and contribution to a climate change global solution. India's first National Action Plan on Climate Change (NAPCC)⁷⁶ emphasizes the overriding priority of maintaining high economic growth rates to raise living standards and the plan identifies measures that promote development objectives while also yielding co-benefits for addressing climate change effectively. The plan says that these national measures would be more successful with assistance from developed countries, and pledges that India's per capita greenhouse gas emissions will at no point exceed that of developed countries even as the country pursues its development objectives.

The challenge for the UNFCCC process is to find ways to ensure that each country's national contribution contributes adequately (avoids breaching the 2°C goal) and fairly (fair share of collective action) to the global problem. This challenge is further explored in Section II.

1.7 Intergenerational justice and equity

*[I]n the final analysis, our most basic common link is that we all inhabit this small planet. We all breathe the same air. We all cherish our children's future. And we are all mortal.*⁷⁷

As indicated in the previous sections, the impacts of climate change are contributing to injustice for current generations of people around the world. Another aspect of climate change is that the impacts are intergenerational. Emissions of carbon dioxide and other greenhouse gases persist in the atmosphere for centuries⁷⁸ meaning that warming is cumulative and that our actions today have repercussions far into the future. Most people can agree that we have a moral responsibility to leave to future generations a global environment that is at least in a similar state to the one we received from our predecessors. This is a fundamental aspect of sustainable development and requires that we use resources and manage our environment in a way that meets the needs of the present without compromising the needs of future generations.⁷⁹

Current inaction on climate change will result in an injustice to future generations. With every year that goes by of failed negotiations and stalled action, the impacts of climate change on future generations increase. Future generations are defined by Elise Boulding (1978) as the '200-year present' — "a continuously moving moment,

always reaching out one hundred years in either direction from the day we are in. We are linked with both boundaries of this moment by the people among us whose lives began or will end at one of those boundaries, three and a half generations each way in time. It is our space, one we can move around in directly in our lives, and indirectly by touching the lives of the linkage people, young and old, around us."⁸⁰

This concept of a 200-year present is helpful in our consideration of climate change as it ties the current generations who are the decision-makers with those before and after them, and in so doing changes the timeframe and context of that decision-making. Three basic principles of intergenerational equity are defined by Edith Brown Weiss (2002), based on the premise that each generation inherits a natural legacy from its predecessors and holds it in trust for future generations. The legacy passed to the next generation should preserve (1) options; (2) quality; and (3) access for the next generation.⁸¹

Options imply that future generations have the same range of options open to them as current generations. If tropical forests are clear cut, for example, future generations have fewer options for carbon sequestration. **Quality** refers to the quality of the planet or the environment that is inherited. Future generations are entitled to a planet of comparable quality to the one inherited by previous generations. Current trends mean that future generations will inherit a planet in a poorer state of health than this generation inherited and this means that future generations will bear the cost of repairing or restoring the planet to better health. **Access** refers to the need for current generations to provide equitable access to the legacy or inheritance from past generations and to conserve this access for future generations. At present current generations are accessing the benefits of fossil fuels inherited from past generations but they are not using these in a way that will allow future generations to have similar access to these resources.

Intergenerational equity and justice should be strong motivators for individual and collective action on climate change as most people care about their children, grandchildren and great grandchildren; but we have not yet succeeded in enshrining this sentiment in international law.⁸² Weston and Bach (2009) link intergenerational justice to "respect-based justice" which is built on a trans-generational global social contract founded on the notion of human solidarity. Respect-based justice is

closely related to international human rights law where there is “recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family,”⁸³ implying past, current, and future generations. Respect-based justice could inform legal approaches to addressing intergenerational equity in climate change policy and law by insisting that each generation has the right to inherit a healthy climate and the responsibility or obligation to pass on a healthy climate.

There are proposals for institutions to enforce such policies and legal frameworks as well as the evaluation and management methods on which they could base their work (Padilla, 2002). The idea of a UN ombudsman for future generations has been proposed by Kornelia (2012). Domestic institutions have been proposed by Tonn (1991) for the U.S., while Ward (2009) has extracted lessons from the Hungarian Parliamentary Commissioner for Future Generations. The idea of an ombudsman for future generations gained some traction at Rio+20 in June 2012 but was not reflected in the final declaration.^{84 85}

2. EQUITY AND JUSTICE IN THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

2.1 Justice in practice: Equity in the UNFCCC

The application of the principle of equity — one of the core principles of the UN Framework Convention — is one of the ways through which principles of climate justice can be made operational in the international climate regime. Justice is an end point to be achieved; equity in the regime can be viewed as a means of moving fairly toward that objective, with climate justice in mind as the ultimate goal.

Article 3 of the UNFCCC contains the language regarding equity that has informed the climate negotiations since 1992. Article 3, “Principles,” begins as follows:

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

- 1. 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. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.⁸⁶*

There are two elements to this principle: equity, and common but differentiated responsibilities and respective capabilities (CBDR-RC). The concept of equity encompasses two time frames: the present, or intragenerational equity, and the future, or intergenerational equity. The principles directly trace their origins to Principle 7 of the 1992 Rio Declaration.⁸⁷ These principles are also present in the spirit of Principle 23 of the Stockholm Declaration of 1972,⁸⁸ and the definition of sustainable development as stated by the Brundtland Commission, which balances intergenerational equity with intragenerational equity.⁸⁹ The legal status of the principle of equity is debated.⁹⁰ It has been argued whether CBDR-RC is an operationalization of equity or whether equity is an entirely separate principle.⁹¹ But, ultimately, the principle of equity “does not fulfill the criterion necessary for it to constitute ‘customary international law’ that is binding on states.”⁹² It is worth noting that, to date, there has been little operationalization of intergenerational equity in the convention while CBDR-RC has been operationalized through differentiation, the annexes, and in many COP decisions.⁹³

Nevertheless, CBDR-RC is the dominant expression of equity in the Convention and “is the overarching principle guiding the future development of the regime.” Even though the principle of CBDR-RC does not assume the character of a legal obligation in itself, “it is a fundamental part of the conceptual apparatus of the climate change regime such that it forms the basis for the interpretation of existing obligations and the elaboration of future international obligations within the climate change regime.”⁹⁵

Without reviewing the principle of CBDR-RC in detail it is worth pointing out there that the principle is made up of component parts, as described by Rajamani (2011) in her assessment of the principle.⁹⁶ **Common** refers to the notion of something being of common concern to mankind. The significance of common concern or common responsibility in an international treaty is to give all Parties a collective sense and individual interest in the enforcement of a treaty. When Parties do not comply, other parties can remind them of their obligations in the manner of a “diplomatic form of a solidarity measure.”⁹⁷ **Differentiated** refers to both contribution to the problem and capability to act. While Rio Principle 7 clearly assigns a leadership role to developed countries due to their responsibility for the causes of environmental degradation, the UNFCCC principle places common and differentiated responsibilities and

capabilities on a level playing field and leaves them open to interpretation and negotiation. **Responsibility** generally denotes ‘agency in having caused particular acts.’⁹⁸ This leads to another contested point in the climate negotiations. Did individuals and countries know they were doing wrong when they emitted greenhouse gases in the past? If they did not know they were doing wrong can they be held accountable? Are they therefore responsible? This is the historical responsibility dilemma. Developed countries can claim they did not know they were doing wrong, but in so doing they used an unfair share of the Earth’s resources and reaped the benefits of that use without having to recompense those who have not yet exploited their fair share. Ultimately responsibility has to relate to responsibility for the cause of the problem and responsibility for solving the problem.⁹⁹

Within the context of the climate regime, CBDR-RC and equity have primarily been applied to mitigation and discussions on ways of designing and agreeing different instruments for reducing greenhouse gases.¹⁰⁰ To a lesser extent it has also informed work on mechanisms for financing low carbon development and technology transfer, with little emphasis to date on adaptation and equity.¹⁰¹ Winkler and Rajamani (2013) state that “Applying equity only to mitigation is unlikely to be fair to all.”¹⁰²

The Convention has applied equity and CBDR-RC in numerous ways. Examples below illustrate the ways in which the principles have been applied to date.

- i. **Finance:** Approaches adopted under the Global Environment Facility (GEF) and the Adaptation Fund (AF) regarding their funding allocation. The GEF provides a minimum level of support for all and, depending on the size and scale of the project, more can be provided as long as it comes from the national allocation plan; it does feature some sort of prioritization from the countries. The AF, on the other hand, institutes the same cap for all countries. The decision to cap the amount of funds each country can receive from the AF was made in order to ensure access by all to a limited pot of money. The cap currently stands at US\$10 million.

The Mexico/Norway proposal on climate finance, proposed in the run up to COP15 in Copenhagen, tried to achieve equity by combining a percentage of UN allowances with a funding model based on three criteria: country emissions, GDP, and population.¹⁰³ Such a scheme would have resulted in all countries,

except the least developed countries and small island states, making budget contributions based on emissions responsibility and capability to pay.

- ii. **Flexible mechanisms:** Equity was a key factor in the design of the CDM. A key concern was equity between non-Annex I countries in access to CDM projects. As CDM is a market-based mechanism, projects go where investors see the best opportunities for investment. Because profits are measured in terms of reduced emissions, countries with high reduction potential are the preferred option. Since investment requires a certain climate of trust, countries with pre-existing Foreign Direct Investment relations with Annex-I countries have an advantage.¹⁰⁴ This has resulted as some predicted in an inequitable allocation of CDM projects with a bias against Least Developed Countries. Recent reforms of the CDM have sought to find solutions to this inequity.
- iii. **Reducing Emissions from Deforestation and Forest Degradation (REDD+):** Equity considerations have informed discussions on REDD+ under the convention due to concerns about how the revenues created by REDD+ financing will be distributed and who will benefit. There have also been concerns about the rights of indigenous communities to access REDD+ benefits and to be formally recognized for their role in forest protection. The experience of Guyana, which has a relationship with Norway that provides it funding in return for forest carbon services, shows that measures need to be taken nationally to ensure that revenues generated by REDD+ reach those who own and protect forest resources.¹⁰⁵ The international community can inform these measures by agreeing to social and environmental safeguards. Other equity dimensions of REDD are discussed in Peskett et al. 2011.

2.2 Equity and differentiation

Divisions regarding equity and CBDR-RC 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.¹⁰⁶ 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.¹⁰⁷ The financial obligations were brought to life in Copenhagen in 2009 when developed countries pledged to provide new and additional resources approaching US\$30 billion for the period 2010–2012; and to commit to a goal of mobilizing jointly US\$100 billion per year by 2020 to address the needs of developing countries on both mitigation and adaptation.¹⁰⁸

It has been suggested that grounds for differentiation between developed and developing countries should include historical responsibility,¹⁰⁹ ¹¹⁰ different levels of economic development and capacities,¹¹¹ and differing vulnerabilities. However, countries disagree on which of these fundamental grounds for differentiation should take prominence and how to set the parameters that serve as proxies for these criteria.¹¹² As a result “differential treatment favoring ‘developing countries’ is a central point of contestation” in the climate change negotiations.¹¹³

Developed countries have questioned differentiation in relation to mitigation targets. Ultimately they question differentiation in relation to central obligations and legal form. 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, no matter if they were listed in Annex I of the Convention.¹¹⁴ During the past year the United States Special Envoy for Climate Change, Todd Stern, has elaborated and updated the U.S. position on CBDR-RC. 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.”¹¹⁵ The Special Envoy added that the U.S. proposes that countries graduate from non-Annex I to Annex I subject to criteria such as stage of economic development or emissions profile or that the annexes be abandoned as a basis for responsibilities and instead “there would be a continuum, with countries of greater responsibility and capability expected to do more.” Regarding the historical approach, he said the preamble of the Convention mentions historical and current emissions

but not responsibilities and that circumstances regarding current emissions have changed since 1992.¹¹⁷

More broadly, developed countries point to the emissions trends over the past two decades: In 1990, developing countries produced a third of annual global emissions; today they emit 55 percent of them. Projections indicate that by 2030, developing countries could produce as much as 70 percent of emissions.¹¹⁸ Speaking at a workshop on “Equitable Access to Sustainable Development” in May 2012, a representative of the European Union said the climate regime should enable all to achieve sustainable development and poverty eradication and that the Convention should be interpreted to reflect an evolving notion of CBDR-RC.¹¹⁹ The EU’s position has been that all major economies should be involved in increasing ambition and closing the emissions gap regardless of whether or not they are Annex I or join a second Kyoto commitment period. The Europeans have acknowledged that the climate regime should take into account “that responsibilities and capabilities are differentiated but evolve over time and that the agreement should reflect those evolving realities by including a spectrum of commitments in a dynamic way.”¹²⁰

Some developing countries, most notably the BASIC countries, 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. These countries also have the greatest capacity to act given their financial and technological resources. The consistent statement from the BASIC 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.¹²¹ Brazil’s stance has been that the polluter should pay even if they did not know they were polluting. This perspective is based on the fact that the accumulation of emissions since the Industrial Revolution created our current climate problem. Between 1850 and 2000, 79 percent of emissions came from developed countries. For example the BASIC experts group, containing thought leaders from Brazil, South Africa, India and China, proposed a carbon budget allocating all greenhouse gases since the beginning of the Industrial Revolution in 1850 on an equal per capita basis.¹²³

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 CBDR-RC 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.¹²⁴ 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.¹²⁵ 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. 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 only way to go.¹²⁷

There is another group of countries with a major stake in this debate — those who contribute little to emissions and who lack the financial and other resources to adapt to it. In the negotiations, these countries are included in the groups called the Least Developed Countries and the Alliance of Small Island States. No matter what they may think about historical responsibility or capacity, their prime concern is that climate change solutions are found and implemented as quickly as possible. For them, climate change is an existential challenge; their land will cease to exist as it succumbs to sea-level rise or it will fail to yield reliable harvests to feed their populations.

Lavanya Rajamani (2012) suggests that recent years have seen “a subtle yet significant erosion of certain forms of differentiation between developed and developing countries in the climate regime.”¹²⁸ Changes relating to differentiation are certainly evident in the Copenhagen Accord,¹²⁹ the Cancun Agreements,¹³⁰ and the Durban decisions.¹³¹ While these instruments reflect continuing acceptance of differentiation regarding assistance, they might be said to signal a change as to mitigation. They still provide for different requirements for developed and developing countries, with the former required to implement “quantified economy-wide emission reduction targets” and the latter to implement “nationally appropriate mitigation commitments.” However, Rajamani argues

that this results in differentiation of increasing irrelevance because countries are allowed to self-select their commitments and actions.¹³²

2.3 Equity and climate action

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. The outcome of this tension is the lack of adequate action to close the emissions gap and meet the 2-degrees target. The current discussions on equity are preventing countries from being ambitious enough in their emissions reductions pledges to achieve the global effort needed to avoid dangerous climate change. This is not helped by the fact that the discussions on equity are focused overwhelmingly on mitigation and not the other aspects of climate action, such as adaptation, technology, capacity building, and financial support. In the absence of a holistic approach to assessing countries contributions to international climate action, the conversation reverts to a stalemate while the problem intensifies and the impacts are increasingly felt by the most vulnerable.

Overall, the challenge is that while countries see climate action as a brake on their development and growth, rather than a new pathway to sustainable development filled with opportunity, it remains difficult to align national interests with global benefits. The other challenge is to marry inter-generational equity with current approaches to CBDR-RC. If the current generation does not take urgent action to reduce emissions, the only alternative is to set aside funds to help future generations deal with the impacts of climate change and compensate for irreparable damage.¹³³ As this alternative is even less palatable politically than mitigation action, it should be a motivator for a more rapid transition to low carbon development.

2.4 A decisive decade for climate justice- equity unlocking action

*“The past grows longer, and the future grows shorter.”
White Feather, Hopi elder of the Bear Clan¹³⁴*

In his assessment of how current economic and political practices have driven us to the edge of planetary boundaries, the environmentalist James Gustave Speth (2008) recalls that John Gibbens, a former Presidential science adviser, “used to say with a wry smile that if we don’t

change direction we will end up where we're headed. And right now we're headed toward a ruined planet."¹³⁵ This decade is decisive if we are truly serious about tackling climate change. More significant commitments and actions to reduce greenhouse gas emissions are required to close the emissions gap and avoid the manifest injustice of a 2°C or even a 4°C world. Amartya Sen (2000) has written that "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."¹³⁶

As the previous section highlights, current levels of warming are already resulting in injustice in terms of food and nutrition insecurity, ill health, and displacement. Breaching the 2°C target would represent a manifest injustice as it will expose vulnerable populations to socio-ecological and economic breakdown. We are currently on course to exceed the 2°C target and will likely overshoot by a considerable margin if we do not accelerate the transition to low carbon development. A re-think of the ways in which the burdens **and** the opportunities of low carbon, climate resilient development is shared is vital to secure the necessary political will and national support for decisive action globally and domestically.

There is a window of opportunity between now and 2015, as a result of the decision taken in Durban in December 2011, to shape a new climate agreement for all countries that is equitable and effective in meeting the goal of the Convention. This new agreement would be operational by 2020 and work is also ongoing under the convention to find ways to increase climate action between now and 2020 to avoid exceeding the 2°C target. So the opportunity consists of (a) the time remaining to reduce emissions at the scale and rate needed to avoid passing the 2°C goal; and (b) the mandate given by the international community to design a new agreement by 2015 and increase action on climate change between now and 2020. These two points are discussed in the following sections.

2.4.1 CLOSING THE GAP - PREVENTING INJUSTICE

The key message from the 2012 Emissions Gap Report produced by the United Nations Environment Programme (UNEP) is that even if countries commit to the higher ends in their pledges, and even if they implement these policies with the highest level of effectiveness, they will still fall short of where we need to be in 2020 by 6 gigatonnes of carbon dioxide equivalent.¹³⁷ Other important data points associated with fossil fuel use and extraction are also trending in the wrong direction. According to the main

reference scenario of the International Energy Agency, growing global production of key fossil fuels is likely to rise by approximately 1 percent annually through 2030. Meanwhile the National Intelligence Council in the United States points to a "likely 'tectonic shift'" that would see the U.S. regaining its position as the world's largest natural gas producer and expanding the life of its reserves from 30 to 100 years and expanding its crude oil production through the use of hydraulic fracturing technologies on difficult-to-reach oil deposits.¹³⁸

Closing the gap may remain beyond reach unless we succeed in applying the principles of equity and CBDR-RC effectively. In the run up to the Rio+20 Summit in June 2012, a High Level Panel on global sustainability, specially commissioned by the UN Secretary General, published a report titled "Resilient People, Resilient Planet" containing 56 recommendations on how to put sustainable development into practice. The High Level Panel noted that "while the principle of equity remains fundamental to sustainable development, disputes about how to apply it in practice mean that it has often been a stumbling block in international relations rather than a core principle for sustainable institutional design in an interdependent world."¹³⁹

The notion of equity as a stumbling block has been particularly prominent in the UN climate negotiations conducted under the auspices of the UNFCCC. If one questioned five different climate negotiators on what they think 'equity' means, the likely result would be five very different answers. Personal experiences and opinions would be overlaid on their cultural perspectives. A philosopher might bring up Aristotle's teachings on justice; an economist would likely talk about maximizing utility and efficiency. A Buddhist and a Muslim might frame their answers from different perspectives that are difficult to compare, just as the viewpoints would likely vary among people raised under different forms of government. As the World Bank points out, "that a concern with equity is so pervasive across cultures, religions, and philosophical traditions suggests that a fundamental preference for fairness is deeply rooted in human beings."¹⁴⁰ But what does fairness mean? Discussions typically revolve around the following topics and questions, although this list is not exhaustive:

- *Process, power, and participation:* Is there an open and transparent system of participation by countries and vulnerable groups? What are the decision-making provisions? Where does decision making power rest? How is this power shared?

- *Determining responsibilities:* Who is responsible for climate change? How should responsibility for addressing climate change be apportioned? For example the “egalitarian principle” posits that every person has the same right to use atmospheric space and to have equal emissions rights. The “sovereignty” or “proportionality” principle posits that current emissions are the basis to discuss equity; whereas the “polluter pays” principle suggests that those who have caused the problem should resolve it, typically interpreting historical responsibility as the appropriate metric.
- *Mobilizing capabilities:* Who has the capabilities to act? How do we mobilize adequate financial and other resources? For example the “ability to pay” principle posits that those with the most resources and highest capability should cover most of the cost of resolving the climate problem.
- *Prioritizing needs:* What processes and criteria should determine thresholds, targets, needs, and priority actions? For example, the “Rawlsian justice” principle suggests that the underprivileged should be favored in dividing costs or benefits; similarly the “basic needs” or “priority” principle recognizes the difference between basic needs for environmental resource and luxury emissions.
- *Striking a balance across space and time:* How should issues of equity be resolved between countries, within countries, and across generations?¹⁴²

What is clear is that there are many competing and legitimate views of what equity means in the wider context of sustainability and in the specific realm of climate change and the UNFCCC. These reflect sharp contrasts on how to share both the burdens and opportunities of the transition to low carbon development. So it is no surprise that when climate negotiators from nearly 200 countries come together at the end of each year, they cannot agree on what exactly ‘equity’ means as applied to addressing climate change.

2.4.2 A WINDOW OF OPPORTUNITY: THE DURBAN PLATFORM AND THE NEW AGREEMENT

Meeting in Durban in December 2011, Parties to the UNFCCC finalized the Durban Platform on Enhanced Action, which sets out a process to negotiate a new climate agreement in the form of a legal instrument to be adopted in 2015 and implemented in 2020.¹⁴³ The preamble to the text calls for “the widest possible cooperation by all countries and their participation in an effective and

appropriate international response.” In the decision Parties agreed “to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties.”¹⁴⁴ The term ‘applicable to all’ signals “a political expectation that the new climate regime must contain greater symmetry on the commitments undertaken by all Parties and, therefore, a more nuanced model of differentiation than has thus far been the case.”¹⁴⁵ This leads to a tension between the need for all countries to act in the common good and the need to differentiate between countries based on real differences in the responsibilities and capabilities to act.

The Durban Platform contains no explicit reference to equity or CBDR-RC but does state that action under the Durban Platform is ‘under the Convention,’ which of course includes Article 3 on the Principles. Clearly equity and CBDR-RC will be key to informing the level and types of actions different countries contribute.

The preamble of the Durban Platform on Enhanced Action also notes and expresses concern at the significant emissions gap and reconfirms the long-term global goal of limiting warming to 2°C. The platform further provides an option for strengthening the goal to 1.5°C, which is an important concession to the most vulnerable countries and a vital link to forthcoming scientific assessments, such as the Fifth Assessment report of the IPCC.

Thus ambition, countries’ collective will — through both domestic action and international initiatives — to cut global greenhouse gas emissions, and equity are two essential components informing the design of a new agreement.

Deciding how to apply equity and CBDR-RC in designing a new agreement will require a sustained and creative discussion over the coming two and a half years. At COP 18 in Doha, Qatar, negotiators were asked to determine an appropriate process to manage the discussion on a new agreement. Their first challenge was to agree on the right timing. Fearing that the equity conversation would be dragged out in an attempt to stall progress toward a new agreement in 2015, some countries favored a time-bound process consisting of one- or two-year timelines. Others resisted an imposed deadline in the belief that the clock was being used against them to stifle debate, with the ultimate aim of removing CBDR-RC from any calculation of the future agreement.

The second challenge was determining which issues to focus on. Some favored an initial discussion on principles of equity that could later be operationalized across all elements of the new agreement. Others wanted to discuss the practical application of the principles from the outset. In the end the Parties decided to undertake a one-year work program to think through the application of the principles of the Convention — including equity — and how this relates to the scope, structure, and design of the new agreement. This process is now underway with submissions received from governments and observer organizations and the first in a series of roundtables and workshops having taken place in Bonn, Germany in April 2013.

An encouraging aspect of the development of the talks from Durban, to Doha and then to Bonn, is the increasing acceptance by countries of the need to discuss equity rather than avoiding it because it is too troublesome. During the closing stages of the negotiations in Doha, the U.S. Special Envoy for Climate Change Todd Stern welcomed a discussion on equity, noting that unless we can find common ground on CBDR-RC we will not succeed in producing a deal. This seemingly benign comment represented a shift in tone and strategy for the United States. Meanwhile, in private sessions some of the BASIC countries also acknowledged that they would need to move and assume more responsibilities in the decades to come. In Bonn in April 2013, equity was a central theme, linked to discussions on how to achieve adequate commitments by countries, across the range of climate actions including adaptation, mitigation, and support, to meet the objectives of the Convention.

3. JUSTICE, EQUITY, AND A NEW CLIMATE AGREEMENT

Climate justice demands an effective and equitable agreement that places people at the center, protects the most vulnerable and equitably shares the burdens and benefits of our responses to climate change.¹⁴⁶ This approach is consistent with the priorities of many countries, from the least developed to the rapidly developing. All countries have vulnerable citizens and ecosystems to protect from the impacts of climate change, all countries want to develop and prosper, and all countries want to seize opportunities for job creation and growth. One of the messages of climate justice is that it is possible to take action on climate change while pursuing sustainable development with due regard to protecting people and treating them equitably.

Climate justice can contribute to informing and designing a new climate agreement in two key ways:

- i. Through the application of the principle of equity (including CBDR-RC, intragenerational equity, and intergenerational equity) in the new agreement in order to unlock the maximum effort by all countries to achieve the 2°C goal; and
- ii. by mobilizing political will around climate justice narratives that place people at the center and frame climate action in terms of the protection of rights, opportunity, and sustainable development.

3.1 Applying equity within a new climate agreement in 2015

As established in the previous section, the application of equity and CBDR-RC will be central to the design of a new climate agreement that meets the 2°C goal. How it is applied will also determine the extent to which it contributes to climate justice by treating countries and people fairly. Amartya Sen (2009) wrote “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. Speculating on what a ‘perfectly just’ society looks like is interesting but does not always advance the cause of justice.”¹⁴⁷ Similarly there is a need to approach the issue of equity in the new climate agreement in a manner that is practical and results in the collective action that will be needed to safeguard the climate and provide sound development pathways for communities across the globe.

Aspects of climate justice that could inform approaches to equity in a new agreement include:

- **The voices of the most vulnerable to climate change must be heard and acted upon when designing a new climate agreement.** This is not to say that a new agreement is only concerned with the most vulnerable; but as a measure of success, the new agreement must protect those who contribute least and suffer the most significant negative impacts. Likewise, the new agreement will have to ensure that all people, regardless of where they live or how wealthy they are, have equitable access to the opportunities created by the transition to low-carbon, climate-resilient development. This includes access to sustainable energy, to clean air, and to green jobs.

- **A basic element of good international practice is the requirement for transparency in decision-making, and accountability for decisions that are made.** This will be critical for a new agreement as countries need to be reassured that others are acting according to their commitments in order to deliver and increase their own commitments. Transparent reporting of actions by the international systems will be a cornerstone of the new agreement and will also enable citizens within countries to hold their governments to account. Recognizing that decisions on climate policies will also be taken, ranging from the UNFCCC to trade, human rights, business, investment, and development, they must be implemented in a way that is transparent and accountable.¹⁴⁸
- **Human rights can also play a role in informing how equity is applied in a new climate regime with a view to protecting the rights of all people.** “Human rights help to base international policymaking in the most widely shared set of international laws and values. They focus attention on the people who are most vulnerable to climate impacts, yet whose voices are often heard least in debates. They also help to identify the source of threats, and hence who is responsible for taking action. And human rights make clear the deep injustice of climate change, acting as a moral spur to action.”¹⁴⁹ A rights-based approach to climate change draws on internationally agreed values around which common action can be negotiated and then acted upon. Human rights deliver valuable minimal thresholds, legally defined, and widely supported, on which to build a new climate agreement.
- **The principle of intergenerational equity, which is central to sustainable development and climate justice, should be concretely stated as a priority, equally important to intragenerational equity, in the new climate agreement.** To date, insufficient emphasis has been placed on intergenerational equity in the negotiations. In designing a new climate agreement the need to address current injustices and guarantee no further injustice must be paramount. Recent proposals including those for an ombudsman for future generations (as exists in Hungary and as proposed for Rio+20) have given this issue more prominence.
- **Different countries will take different actions, in different forms, and in different timeframes — but all will need to act, all have responsibility to protect human rights, and all can benefit from**

the transition to a new type of economic growth.

The vast gulf in resources between rich and poor, within and between countries, results in the global inequalities that frame the climate change negotiations. Climate change both highlights and exacerbates this gulf in equality. The right to a new type of economic growth is cherished by all nations and a new climate agreement will have to catalyze inclusive and equitable access to sustainable development. In so doing it can ensure that those living in poverty benefit from low-carbon, climate-resilient development while those who have reaped the benefits of fossil-fuel powered growth provide support and lead the transition to a low-carbon economy.

Ultimately, countries will be judged both in terms of the adequacy of their commitment and the extent to which it constitutes a fair share of the global effort required to prevent dangerous climate change. Commitments are not just related to greenhouse gas emissions, they also relate to actions taken to adapt to climate change and in so doing to protect citizens from risk, as well as action related to the investments made by governments in climate actions, technology, or capacity building. For these reasons it will be imperative to move the equity debate beyond the current discussions on mitigation to see how the principle can be applied to adaptation and support. Winkler and Rajamani (2013) suggest this will require a more nuanced interpretation of equity and CBDR-RC.¹⁵⁰ The core value of this statement is that it focused on the interpretation of equity and CBDR-RC and not on a redefinition or revision of the principles, which is a concern amongst many developing country Parties. The principles of equity and CBDR-RC are fundamental to the UNFCCC and will ultimately shape the new climate agreement. The challenge lies in how the principles are used in practice to determine the actions countries will take to meet the objective of the Convention. The international community has considerable experience with CBDR-RC as applied to mitigation — but has yet to demonstrate the full potential of CBDR-RC in the context of support and adaptation, as well as the role intergenerational equity could play in inspiring and shaping a collective response.

3.2 Shaping Narratives and Mobilizing Domestic Constituencies of Demand

“The human mind was shaped for story, so it could be shaped by story.”¹⁵¹

Applying the equity principles of the Convention to the design of a new agreement is just one part of the role

climate justice can play in ensuring an equitable and ambitious new climate regime. Without political will countries will not be prepared to contribute their maximum effort to the global problem and without demand from citizens and key constituencies, political leaders will not be pushed to do their fair share. To mobilize demand people need to be moved by a compelling narrative – one that goes beyond well-researched graphs, scientific facts, and threats of disaster – to connect them to a global and long-term problem in a personal way. A human-centered narrative is vital to building momentum in key countries and pushing decision-makers to elevate climate action to the top of the political agenda.

Narratives and stories have played an important part in movements across the world over the years. Now may be the moment for a new set of climate justice narratives that mobilize demand in countries for urgent action on climate change. If so, what lessons can be learned from other narratives and movements?

In June 1962 *The New Yorker* magazine began serializing *Silent Spring* by Rachel Carson, a landmark in environmental writing, documenting the devastating impacts of chemical pollution on socio-ecological systems.¹⁵² The book derived a great deal of its power from its opening “fable for tomorrow,” a fictional account describing a storybook town’s descent from natural harmony into what Paul Hawken (2010) describes as a “pesticide-poisoned reality.”¹⁵³ Carson’s town initially contained an abundance of life with prosperous farms supporting a vibrant local economy, providing a wide variety of livelihoods and guaranteeing food security for all. And then the “grim specter” of pesticides emerged leaving “brown and withered vegetation,” widespread illness and fatalities amongst the local population, and the collapse of biodiversity with the disappearance of the birds famously leading to a “Spring without voices.”¹⁵⁴

Carson’s book packaged an environmental problem into a story which people engaged with and cared about, so that they demanded action locally and nationally resulting in tighter controls on pesticides in many countries around the world. We need a similar approach to climate change. Often perceived as an environmental or technical issue that is communicated on the basis of science and through graphs and charts, climate change has yet to touch hearts and mobilize concerned citizens to act.

There is a need to mobilize domestic constituencies in countries around the globe to demand greater urgency and more action from political and business leaders. A compelling vocabulary of arguments will be needed to motivate citizens, consumers, civil society, faith-based organizations, small businesses, corporations, and governments at all levels. Success on the domestic front will require a sustained push to elevate climate to the top of the political agenda, replacing or complementing other issues that have cornered the political capital in major and emerging economies over recent years. Success will also require sustained engagement and advocacy by a range of stakeholders, some of whom have not traditionally engaged with climate. A climate justice narrative can form a vital component of this wider vocabulary.

First and foremost climate change needs to be a front-of-mind issue. The British sociologist Anthony Giddens (2009) uses the term “foregrounding” to refer to the use of the various political devices that can be deployed to keep global warming at the core of the political agenda.¹⁵⁵ Too often in the past, public and political interest in climate has experienced peaks and valleys. The years between 2006 and 2009 could be described as a significant peak. A combination of factors including the release of former U.S. Vice President Al Gore’s *An Inconvenient Truth* and the publication of the IPCC Fourth Assessment Report were major catalysts for increased public and political focus on climate change. The UN climate conference in Copenhagen in December 2009 was supposed to be the culmination of these years of intense climate focus; however, the conference ended in disappointment and climate retreated from the top of the political agenda as quickly as it had appeared. Climate became a back-of-the-mind issue, struggling to compete for political oxygen with the financial crisis and economic slowdown.

The scholar John Kingdon has captured this dynamic in his 1984 work *Agendas, Alternatives and Public Policies*. He argues that issues are elevated to the top of the agenda as a result of three distinct categories — problems, policies, and politics.

A “problem” might be a dislocating event that brings climate change into sharp relief and serves as a jolt to decision-makers. Extreme weather events such as Hurricane Katrina or Super-storm Sandy in the United States or the devastating European heat wave of 2003 that led to 52,000 fatalities¹⁵⁶ fall into this category. “Policies” emerge as a result of a process of gradual accumulation

of knowledge and perspectives. The periodic reports from the IPCC coupled with the full weight of specialist knowledge coming out from such diverse members of the UN family as the World Health Organization, the World Food Programme, the United Nations Environment Programme, or the World Bank fall into this category. According to Kingdon, policy specialists begin to generate policy proposals bringing the politics into play.¹⁵⁷ When the right mix of problems, policies, and politics are in place windows of opportunity begin to open. At this point success or failure can depend on the emergence of domestic constituencies of demand to champion the issues, evolve the policy proposals and apply pressure to political leaders.

The increasing intensity and frequency of extreme weather events has catapulted stories of devastated communities and ruined lives into the news. International organizations are doing a better job of translating complex science into human stories about jobs, hunger, food, water, health, gender, and human rights. There is a trend emerging to discuss climate change as a human story, a business issue, an energy challenge, an ethical issue; and this, along with a growing body of strategies and policies to address climate change, could start to change the politics of the problem.

The socio-ecological impacts presented in Section I of this paper are important in helping us diagnose climate as a human issue and consequently enable us to prepare proper responses at scale. However, these impacts have a power beyond diagnostics by helping move us to action by enabling us, if only for a moment, to share in the fate of vulnerable populations. Socio-ecological impacts present climate change through the lens of human experience and as a consequence deploy a method (storytelling) and a narrative (justice) that have moved us to address socio-ecological challenges throughout human history. In *A Theory of Justice* the philosopher John Rawls (1999) proposed that we agree to “share one another’s fate” as a means to help us empathize with the struggles of the most vulnerable and install the types of institutions, laws, and civic norms that would protect the marginalized and most at risk.¹⁵⁸

In *Blessed Unrest*, Paul Hawken (2010) reflects on the power of civil society to effect change. Among other examples he provides an overview of the moral arguments used by abolitionists seeking to end the slave trade and the power of those appeals to the better nature of humanity in the face of weighty economic arguments in favor of

maintaining the trade. He writes “In 1787 a dozen people began meeting in a small print shop in London to abolish the lucrative slave trade. They were reviled and dismissed by businessmen and politicians. It was argued that their crackpot ideas would bring down the English economy, eliminate growth and jobs, cost too much money, and lower the standard of living.” But six decades later slavery was outlawed in most countries around the globe.¹⁵⁹

In the 1930s President Roosevelt met with a group of activists who sought his support for New Deal legislation. He listened to their arguments for some time and then said, “You’ve convinced me. Now go out and make me do it.”¹⁶⁰ At the height of the civil rights movement President Lyndon Johnson listened intently as Dr. Martin Luther King, Jr. talked about daily humiliations, intimidation, and violations of basic rights. The President’s response was “Okay. You go out there Dr. King and keep doing what you’re doing, and make it possible for me to do the right thing.”¹⁶¹ Both presidents knew that leaders concentrate their limited time and capital on issues that have been elevated to the top of the political agenda.

More recently new social movements have emerged: from the colored revolutions in Ukraine, Georgia, and Iran to the indignado protests in Europe; from the Occupy phenomenon to the Tea Party; and throughout the Middle East and North Africa on the tide of the Arab Spring. Without commenting on the outcomes of these movements they, like many earlier movements and revolutions, were inspired by a sense of injustice and a call for justice. These movements mobilized people around notions of rights, freedom, and justice and with differing degrees of success they captured a prevailing zeitgeist. They knew that domestic constituencies of demand, equipped with powerful and compelling narratives, could move the political process.

There is an opportunity for the climate community to learn from these narratives and movements. A new set of climate narratives centered on people, justice, a positive future, and opportunities could serve as an additional pressure point on the road to 2015 to complement the work of the IPCC Fifth Assessment Report on the science of climate change, the UNFCCC periodic review on the emissions gap, and the evolving evidence base on green growth and competitiveness. If governments can be persuaded to do more by the volume of demand domestically, their negotiators will come to the negotiations with a mandate to be more ambitious. Domestic constituencies

also play an important role in informing what constitutes fair effort from a national perspective. Governments need to be able to demonstrate that the action they will take on climate change is fair domestically and internationally to be able to secure the political capital needed to sign up to new commitments. It is the collective weight of these commitments that must add up to enough to avoid the ultimate injustice of surpassing the 2°C goal which will affect all people.

In addition equity cannot remain a quarrel about the past. It must be our opportunity to secure a fair future for all with equitable access to sustainable development and respect for planetary boundaries. More than ever before the time has come for climate justice.

4. CONCLUSION

Climate change is an issue of justice. Climate change mostly affects those who contributed least to the problem, and it undermines human rights including the right to food, to health, and to development. This injustice should be a motivator for collective action toward the internationally agreed 2°C goal. Instead, disagreements over how to apply the principle of equity as contained in the UNFCCC are holding countries back from contributing their maximum climate action as they wait to see what others will do first. Meanwhile, emissions continue to be released into the atmosphere and the impacts of climate change on people, economies, and ecosystems intensifies.

To deliver climate justice a new climate agreement will have to engage all countries of the world in cooperative action to avoid dangerous climate change and adapt to the unavoidable impacts. To shape this agreement the principle of equity, including intragenerational and intergenerational equity and CBDR-RC, will have to be applied to all aspects of the agreement, including adaptation, mitigation, and support.

In addition, new narratives will be needed to engage people and get them to care about climate change so that they can demand more action from their political leaders. Powerful climate justice narratives, complementing scientific and economic arguments, can create a wide vocabulary of arguments in support of urgent, ambitious, and equitable climate action.

Addressing the British Parliament in 1940, Winston Churchill said, “Of this I am quite sure, that if we open a quarrel between the past and the present, we shall find that we have lost the future.”¹⁶² In the new climate agreement equity cannot be about sharing failure. It must become a means to share both the opportunities and challenges of the transition to low carbon, climate resilient development.

ENDNOTES

1. Martin Luther King, Jr. From a letter while in Birmingham Jail, 1963.
2. For more information go to www.climatejusticedialogue.org
3. At the Fifteenth Conference of Parties in Copenhagen, Denmark, countries agreed to hold the increase in global temperature below 2°C above pre-industrial levels in accordance with the IPCC Fourth Assessment Report's findings.
4. Intergovernmental Panel on Climate Change, 2007b.
5. IPCC 2007a.
6. United Nations Development Programme 2007.
7. World Bank 2012.
8. United Nations Environment Programme 2012.
9. International Union for Conservation of Nature 2008, pp80–81.
10. Buddemier et al 2004.
11. Cameron 2009b, p63
12. IPCC 2012, p18.
13. National Intelligence Council, p97.
14. Andersen 2003, pp57-58.
15. World Bank 2012, p68.
16. UNDP 2007, p4.
17. Sen 2009, p4.
18. IPCC 2007b, p380.
19. Millennium Ecosystem Assessment, 2005, p225.
20. Buddemier et al 2004.
21. Global Humanitarian Forum 2009, p18.
22. Global Humanitarian Forum 2009, p20.
23. Trocaire & IDS, 2012.
24. United Nations 2012, p8
25. United Nations 2012, p8
26. Department for International Development 2009.
27. Kadambari 2006.
28. Kadambari 2006.
29. Beguin et al 2011.
30. UNFCCC 2013.
31. Lutz and Samir 2010.
32. FAO-OECD, 2012.
33. Beddington 2011, p6.
34. Nelson et al. 2009, p7.
35. UNDP 2007, p27.
36. NIC 2012, p13.
37. 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 [one] self and [one’s] family, including adequate food, clothing and housing, and to the continuous improvement of living conditions,” while pursuant to article 11.2 governments recognize that more immediate and urgent steps may be needed to ensure “the fundamental right to freedom from hunger and malnutrition.” (United Nations, 1966b).
38. De Schutter et al., 2013.
39. De Schutter, 2013.
40. Article 25 of the Universal Declaration of Human Rights, 1948, affirms: “Everyone has the right to a standard of living adequate for the health of [one]self and of [one’s] family, including food, clothing, housing and medical care and necessary social services;” while Article 12 of the International Covenant on Economic, Social and Cultural Rights recognizes “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.” Several regional human rights instruments also recognize the right to health.
41. 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 [one] self and [one’s] family, including adequate food, clothing and housing, and to the continuous improvement of living conditions”.
42. UN Office of the High Commissioner for Human Rights, 1991. CESCR General Comment No. 4.
43. Article 24 of the Convention on the Rights of the Child, 1990, Article 14 of the Convention on the Elimination of All Forms of Discrimination against Women, 1979, and Article 28 of the Convention on the Rights of Persons with Disabilities, 2007. In 2002, the United Nations Committee on Economic, Social and Cultural Rights adopted its general comment No. 15 on the right to water, defined as the right of everyone “to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses.” Four years later, the United Nations Sub-Commission on the Promotion and Protection of Human Rights adopted guidelines for the realization of the right to drinking water and sanitation. The United Nations Development Programme (UNDP), too, has underlined that the starting point and the unifying principle for public action in water and sanitation is the recognition that water is a basic human right. In 2008, the Human Rights Council created the mandate of the ‘independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation’ to help clarify the scope and content of these obligations.
44. IPCC, 2007a.
45. United Nations Human Rights Council resolution 7/23. “Human rights and climate change” (28 March 2008).
46. United Nations Framework Convention on Climate Change CP/2010/7/Add.1/1/CP.16, 2010.
47. Orellana 2009.
48. Dresner et al., 2013.
49. An earlier version of this table originally appeared in Cameron 2011.
50. Shue, 1992.
51. Byravan et al 2010, p246.
52. Gardiner and Hartzell-Nichols, 2012. p1.
53. Adger 2001.
54. Schneider et al 2007, p790.
55. Schenider et al 2007.
56. New Economics Foundation, 2007, p3.

57. Viner and Agnew 1999.
58. Cameron 2009b.
59. Cameron 2009a.
60. NEF 2006.
61. NEF 2006.
62. Ford et al., 2008.
63. Lindley et al., 2011.
64. World Food Programme 2011, pp5-6.
65. United Nations 2012a.
66. Irish Aid 2005.
67. Oxfam 2008.
68. Harvey 2012.
69. Stern 2009, p23.
70. Romani et al 2012.
71. The BASIC countries are Brazil, South Africa, India and China.
72. Byravan et al 2010.
73. Garibaldi, 2013.
74. Federal Democratic Republic of Ethiopia, 2011.
75. Ministerio de Ambiente, Energía y Telecomunicaciones, Costa Rica, 2007.
76. Government of India, 2008.
77. President John F. Kennedy, Commencement Address at American University (June 10, 1963), available at <http://www.american.edu/media/speeches/Kennedy.htm>.
78. IPCC, 2007a.
79. World Commission on Environment and Development, 1987
80. Boulding, 1978.
81. Brown Weiss, 2002.
82. Weston and Bach, 2009.
83. Universal Declaration of Human Rights, UN, 1948.
84. Walley, 2011.
85. Environmental Pillar of Social Partnership, 2011.
86. United Nations 1992.
87. United Nations Environment Programme, 1992.
88. United Nations, 1972.
89. World Commission on Environment and Development, 1987.
90. Burns, 2011.
91. Winkler and Rajamani, 2013.
92. Rajamani, 2011, p123.
93. Melkas, 2002.
94. Rajamani, 2011,p123.
95. Rajamani, 2006 and quoted in Winkler & Rajamani, 2013.
96. Rajamani, 2011.
97. Bodansky, Crook and Crawford, 2002, p881.
98. Rajamani, 2011, p122.
99. Rajamani, 2011, p 122.
100. Winkler and Rajamani, 2013.
101. Gemenne, 2009.
102. Winkler and Rajamani 2013, p 4.
103. Office of the Prime Minister, Norway, 2009.
104. Humphreys et al., 1998.
105. Mary Robinson Foundation-Climate Justice, 2011.
106. Halsnæs, K., et al 2007, p146.
107. Winkler and Rajamani, 2013
108. UNFCCC 2010, pp16-17.
109. Refers to the greenhouse gas emissions released in to the atmosphere in the past. Industrialized countries currently have greatest responsibility for the accumulated emissions in the atmosphere.
110. UNFCCC 1997, Brazilian Proposal.
111. Baer et al. 2009.
112. Ringius et al., 2002, p 2.
113. McInerney-Lankford et al 2011, p50.
114. SR 98, 1997.
115. Stern 2011.
116. Stern 2011.
117. Third World Network 2012, p7.
118. Romani et al., 2012, p. 12.
119. European Union, 2012.
120. Danish Presidency of the European Council, 2012
121. Government of China 2012.
122. Government of Brazil 2012.
123. BASIC Experts 2011, p6.
124. Dubash, 2012, p4.
125. Dubash, 2012 p3.
126. Government of India, 2012.
127. BASIC Experts 2011, p61.
128. Rajamani 2012, p616.
129. UNFCCC 2009.
130. UNFCCC 2010.
131. UNFCCC 2011.
132. Rajamani 2012, p618.
133. Gemenne, 2009.
134. Excerpt From: Hawken 2010, p146.
135. Speth 2008, p 237.
136. Sen 2000, p21.
137. UNEP 2011 pp8/9.
138. NIC 2012, p14.
139. United Nations 2012a, p28.
140. World Bank 2005, p76.
141. Rawls 1974.
142. For a detailed discussion on different equity principles see Metz 2000, pp111–126.
143. UNFCCC 2011.
144. UNFCCC 2012, para 2.
145. Winkler and Rajamani, 2011, p2.

146. Based on the MRFCJ definition of climate justice: Climate Justice links human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable and sharing the burdens and benefits of climate change and its resolution equitably and fairly. Climate justice is informed by science, responds to science and acknowledges the need for equitable stewardship of the world's resources. <http://www.mrfcj.org/about>
147. Sen 2009, p106.
148. MRFCJ, 2011. Principles of Climate Justice. www.mrfcj.org/about
149. Oxfam 2008 p2.
150. Winker and Rajamani, 2013
151. Gottschall 2012, p88.
152. Berkes et al 2000.
153. Hawken 2010, p47.
154. Carson 1962, p27.
155. Giddens 2009, pp 68-71.
156. Larsen 2006.
157. Kingdon 1984. P18.
158. Rawls 1999.
159. Hawken 2010, p46.
160. See Huffington Post article by Peter Dreier at http://www.huffington-post.com/peter-dreier/go-out-and-make-me-do-it_b_281631.html
161. See essay by Bill Moyers at <http://www.pbs.org/moyers/journal/01182008/transcript4.html>
162. Speech in the House of Commons, June 18, 1940.

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ABOUT WRI

WRI focuses on the intersection of the environment and socio-economic development. We go beyond research to put ideas into action, working globally with governments, business, and civil society to build transformative solutions that protect the earth and improve people's lives.

ABOUT MRFCJ

The Mary Robinson Foundation — Climate Justice is a centre for thought-leadership, education and advocacy on the struggle to secure global justice for people vulnerable to the impacts of climate change who are usually forgotten — the poor, the disempowered and the marginalised across the world. It is a platform for solidarity, partnership and shared engagement for all who care about global justice, whether as individuals and communities suffering injustice or as advocates for fairness in resource-rich countries.

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