1-1-2009

The Human Dimension of Global Climate Change

Edward Cameron

Follow this and additional works at: https://repository.uchastings.edu/hastings_environmental_law_journal

Part of the Environmental Law Commons

Recommended Citation
Available at: https://repository.uchastings.edu/hastings_environmental_law_journal/vol15/iss1/1

This Article is brought to you for free and open access by the Law Journals at UC Hastings Scholarship Repository. It has been accepted for inclusion in Hastings Environmental Law Journal by an authorized editor of UC Hastings Scholarship Repository. For more information, please contact wangangela@uchastings.edu.
The Human Dimension of Global Climate Change†

Edward Cameron*

I. From Natural Systems to Human Ones

Climate Change is the defining issue of our time and the fundamental challenge of the 21st century. Moreover, it is not just an environmental challenge or scientific thesis, it is first and foremost a human issue. It is already adversely impacting individuals around the planet, due to alterations in ecosystems, and increased incidence of natural disasters. These impacts have been observed to be intensifying in frequency and magnitude.

Reflecting on the state of climate science, the author George Monbiot has written, “to doubt, today, that man-made climate change is happening, we must abandon science and revert to some other means of understanding the world: alchemy perhaps, or magic.” While a vocal but discredited minority persists in denying global warming the scientific consensus is clear and compelling.

The credit for establishing such a robust consensus goes to the Intergovernmental Panel on Climate Change (IPCC) and its landmark Fourth Assessment Report published in 2007. The IPPC’s headline conclusion is that climate change is unequivocal, accelerating, and very likely human

† The views expressed in this paper are those of the author alone and do not represent nor reflect the official position of any government or organization. “The Human Dimension of Climate Change” was the name given to the initiative of the Maldives government launched in 2007 with the aim of changing the nature of the conversation on climate change. It describes an analytical framework with the goal of translating the climate change debate from one focused on science and natural systems impacts into one concentrating on the consequences for human systems.

* Edward Cameron is a specialist in climate change and governance. He has served as Senior Advisor on climate change to the Ministry of Foreign Affairs of the Maldives and in numerous capacities in Brussels and Washington, DC. He teaches courses on sustainability and climate change at universities in Europe and the United States.

1. George Monbiot, HEAT: HOW TO STOP THE PLANET FROM BURNING 3 (South End Press 2007).
induced. For the IPCC “very likely” means a more than 90 percent certainty in the validity of the statement.²

The IPCC concluded that the weight of scientific evidence supporting these claims is overwhelming. The Report from Working Group I concluded that “warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.”³ Moreover, the atmospheric concentrations of greenhouse gases have increased markedly as a result of human activities since the industrial revolution and now “far exceed pre-industrial values determined from ice cores spanning many thousands of years.”⁴ The primary source of the increased atmospheric concentration of carbon dioxide since the pre-industrial period results from fossil fuel use, with land-use change providing another significant but smaller contribution.⁵ This has resulted in long-term changes to the climate including “changes in arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones.”⁶

Why should this concern us? Because even subtle changes to the global climate will lead to increased risks to unique and threatened systems, including coral reefs; risks of extreme weather events, including swells, surges and cyclones; distribution of impacts, with the vulnerable and the poor being most at risk due to lack of adaptive capacity; aggregate impacts leading to increased vulnerability over time; and the risks of large-scale singularities such as changes to the thermohaline circulation, which transports heat north from the equator and is partly responsible for Europe’s hospitable climate.⁷

These headline conclusions do not even begin to capture the scale and complexity of the evidence that the IPCC examined, nor does it adequately


⁴. Id. at 2.

⁵. Id.

⁶. Id. at 7.

reflect the grim threat faced by many of the world’s most vulnerable populations.

As Christian Aid has pointed out “climate change and poverty are mixing in the lives of the world’s poorest people, to deadly effect. More frequent drought and more severe seasonal flooding are testing the limits of community resilience, pushing already precarious lives closer to the edge.”

The United Nations Development Programme (UNDP) has determined that climate change could stall and then reverse human development through reduced agricultural productivity, increased water insecurity, increased exposure to extreme weather events, collapsed ecosystems, and increased health risk caused by water-borne and vector borne diseases, and increased vulnerability caused by malnutrition.

An estimated two degree Celsius rise will expose between 2 billion and 3 billion people to water shortages as glaciers melt, droughts become more common, and sea-water seeps into fresh water supplies. According to the World Health Organization (WHO) and United Nations Children’s Fund (UNICEF) more than 1 billion people, or 18 percent of the world’s population, already suffer from water stress. In a warming world those who already lack adequate supplies of water will grow thirstier.

The UN Food and Agriculture Organization (FAO) 2006 State of Food Insecurity Report estimated that 854 million people worldwide suffer from hunger and malnutrition, including 820 million in developing countries. Speaking in Rome in December, the FAO Director-General Jacques Diouf said “[i]f we do not act now, climate change will increase the number of hungry people in the world.” Again it is the poorest countries that will be hardest hit. They will suffer severe loses in crop production, increasing the number of undernourished people and severely hindering progress in

---


10. IPCC SYR, supra note 7, at 27.


combating poverty. Those who already suffer hunger will find it harder to grow food.

Over the coming century projected sea-level rises are expected to exacerbate storm surges, erosion and other coastal hazards, thus threatening vital infrastructure, public services and human settlements. Those whose lands are eroding from an encroaching desert or rising sea-levels will find it harder to build a home and raise a family.

While the exact impact on migration and infectious diseases is hard to predict, analysis from sources as diverse as the Office of the United Nations High Commissioner for Refugees, the International federation of Red Cross and Red Crescent, and the Stern Review suggest that as many as 50 million people worldwide will be displaced because of drought, desertification and rising sea levels. The World Health Organization and leading health providers are anticipating an increase in water-borne and vector-borne diseases, in diarrheal diseases, and in malnutrition as a result of associated climate impacts.  

For many of the world’s Least Developed Countries (LDCs) climate change will undermine efforts to achieve the Millennium Development Goals (MDGs) and place the long-term promise of sustainable development in doubt. These countries are especially prone to increased water stress; food insecurity through droughts and desertification; new health risks; and extreme weather events. The chronic lack of adaptive capacity, including financial, technical, and institutional resources, mean they are ill-prepared to deal with these multiple threats.

The cumulative effects of climate change will make it increasingly difficult for the poorest 40 percent of the world’s population – some 2.6 billion people – to build a better life for themselves and their children; and will reinforce the vast disparities and inequalities in our societies. Climate change is therefore best understood as an additional stress on an already stressed system, pushing those already living on the margins close to the edge.

This has led the United Nations Development Program (UNDP) to conclude that “in the long run, climate change is a massive threat to human development and in some places it is already undermining the international community’s efforts to reduce extreme poverty . . . for some of the world’s poorest people, the consequences could be apocalyptic.”

While climate change impacts have the potential to cause damage beyond redress, we must also consider the impact that climate action could have on the vulnerable. In recent months the international community has been struggling to come to terms with the burgeoning food crisis. While


15. UNDP, supra note 9, at v.
estimates vary, it appears that many millions of poor people have been pushed deeper into poverty as a result of soaring food prices. While there are many issues at play there is little doubt that diverting land from agricultural production to the cultivation of crops for biofuels is having a significant impact on food prices.

II. From Political, Economic and Social Challenges to an Existential Crisis

As I sat down to write this article The Washington Post was leading with a story on the burgeoning global food crisis. The article, which focused on a woman in Burkina Faso, opened with the following paragraph:

After she woke in the dark to sweep city streets, after she walked an hour to buy less than $2 worth of food, after she cooked for two hours in the searing noon heat, Fanta Lingani served her family’s only meal of the day... But when it comes time to eat, men and children eat first, and women eat last and least.16

This is just one of countless human stories that are often lost in the sea of statistics that describe the state of the modern world. The world’s most vulnerable people live on the margins and climate change will push them closer to the edge. Although they have the dubious honour of being the first to suffer the myriad impacts of global warming, “last and least” accurately describes their position in international discussions on climate change. They have contributed least to the growing concentrations of CO2 and other greenhouse gases in our atmosphere and so have the least responsibility for the crisis we now face. They are least likely to be heard at the negotiating table as they lack the political weight of the major emitters. As a result, their vulnerability goes unnoticed and their voices go unheard. They are also least likely to be the beneficiaries of climate funds, most of which gets spent on mitigation (particularly energy projects) rather than adaptation. And when action is taken they are least likely to be involved in the consultations.

Vulnerability to climate impacts is determined by a variety of factors. According to the IPCC, vulnerability is a function of the character, magnitude, and rate of climate change and variation in which a system is exposed, it’s sensitivity, and its adaptive capacity.17 Those communities most at risk tend to be heavily dependent on climate sensitive resources and


17. IPCC SPM 2, supra note 2, at 21.
ecosystems. They also typically lack the capacity to adapt to climate shocks as they have insufficient financial, human, knowledge and governance resources.

Small Island States are often cited as the most vulnerable to climate impacts and the first nations on Earth to face critical climate change thresholds. Their small size, remoteness, geographical dispersion, vulnerability to natural disasters, fragile ecosystems, constraints on transport and communication, lack of natural resources, and limited freshwater supply, mean they are susceptible to even small changes to the global climate.

As a small island nation in the Southern Indian Ocean, the human drama of climate change is a daily reality to the Maldives and its 300,000 inhabitants.

In 1987 the President of the Maldives, His Excellency Maumoon Abdul Gayoom, became the first world leader to draw attention to the threat of global warming. In a landmark speech to the United Nations General Assembly he warned that climate change would result in the death of his nation and others like it. Twenty years on and the effects of climate change are already evident.

Today, storm surges and coastal erosion cause loss of homes, pose dangers to infrastructure and utilities, and divert limited resources from strategic development to a cycle of destruction and reconstruction.

The IPCC has concluded, “it is likely that future tropical cyclones (typhoons and hurricanes) will become more intense, with larger peak wind speeds and more heavy precipitation associated with ongoing increases of tropical sea surface temperature.” 18 The panel further concluded that “where extreme weather events become more intense and or more frequent, the economic and social costs of those events will increase, and these increases will be substantial.” 19

In the medium term the rising ocean temperatures, coupled with growing acidification, threaten the survival of the country’s coral reefs, the very lifeblood of the economy.

The island’s two principal industries, tourism and fisheries, are entirely dependent upon the reefs. They account for 40 percent of GDP and more than 40 percent of employment. Together, these industries have fueled the sustained and enviable economic development that has enabled the Maldives to grow from being one of the poorest countries in the world in the 1970s to today being the richest per capita in the region. The latest studies estimate that a third of the world’s reef-building coral species are facing extinction. Writing in the July 2008 edition of the journal Science, a team of researchers evidence that climate change, coastal development, over-fishing, and pollution are the major threats. The new analysis shows that

---

18. IPCC SPM, supra note 3, at 15.
19. IPCC SPM 2, supra note 2, at 12.
before 1998, only 13 of the 704 coral species assessed would have been classified as threatened. Now, that number is 231. The Caribbean has the largest proportion of corals in high extinction risk categories, but the Maldives reefs are also severely threatened.20

The unprecedented development in the Maldives during the past three decades means that this generation is the most fortunate to have ever lived on the islands. If climate change trends continue as projected, this generation may also be the most fortunate one that ever will.

For in the long term it is not economic development but the country’s very survival that is threatened.

The IPCC Fourth Assessment Report warned that sea-levels could rise by 60 centimeters by the end of the century.21 Recent papers in Science and Nature suggest that sea level rise could be above 80 centimeters, which is far more substantial than the Fourth Assessment predicted and closer to the projections in the IPCC third Assessment from 2001.22 With most of the islands lying less than one meter above sea level these projections, if correct, will mean that a child born in the Maldives today may not have the opportunity to live out his life in the country of his birth.

The government of the Maldives is working to avoid this fate with a comprehensive program of domestic adaptation. Work has been concentrated on reinforcing vital infrastructure, particularly related to transport and communications. Public utilities ranging from water supply and electricity generation to the provision of healthcare and education are being strengthened against climate threats. Flood defenses have been constructed and measures are being taken to minimize coastal erosion.23

Perhaps the most innovative adaptation measure is the development of the “safe-island” concept. This initiative is designed to minimize climate vulnerability by resettling communities from smaller islands that are more vulnerable onto larger and better protected ones. This enables the government to concentrate its limited resources on protecting the more viable islands. It also allows for the strengthening of public services, and the development of economic opportunities.

21. IPCC SPM 2, supra note 2, at 13.
Some degree of climate change is already inevitable as the effects of current concentrations of greenhouse gases in the atmosphere continue to appear during the coming century. Adaptation must therefore form an integral part of our approach to surviving climate change. International activity on adaptation should include vulnerability assessments, enhancing resilience to climate impacts, access to information and best practices, building human and institutional capacity, and making public and private investments in developing countries more resilient to climate impacts.

Domestic adaptation in the Maldives, and throughout other vulnerable societies, will involve significant engineering projects and large financial investments. It also requires large scale capacity building to strengthen institutional capacity, enhance knowledge, human, and financial resources; and encourage a program of awareness raising to prepare the island’s population for the inevitable changes.

Adaptation without mitigation will result in little more than a temporary respite, postponing catastrophic climate change to a later date. Urgent and ambitious action must be taken to reduce greenhouse gas emissions. This will require a greater commitment to research, development, and innovation, coupled with substantial reform of our governance structures.

III. So Much Is Known and Yet So Little Has Been Achieved

Donald Worster has written that ecology seems like a stranger from out of town, like “a presence without a past.” It is tempting to characterize climate change in the same way. But to do so would be to ignore more than three decades of denial and delay. Just as ecology is built on centuries of evolving science and discovery, climate change has emerged over a long period of time, first as a theoretical concept, and more recently as the most pressing threat to human and natural systems.

As long ago as 1979 the United States National Academy of Sciences published an assessment of the scientific basis for climate change. The Charney Report (named in recognition of its Chair Jule Charney) stated that “[w]e now have incontrovertible evidence that the atmosphere is indeed changing and that we ourselves contribute to that change.” The report goes on to conclude that “[i]f carbon dioxide continues to increase, the study group finds no reason to doubt that climate changes will result and no reason to believe that these changes will be negligible.”


It has taken almost 30 years for mainstream opinion to accept these conclusions but even today the distance between rhetorical commitments and real action on climate change remains great.

In December, more than 10,000 delegates gathered in Bali, to design a roadmap for future climate change negotiations. The “Bali Action Plan” represents an important consensus between almost 200 sovereign nation states and establishes a process that could lead to the conclusion of a new global climate change treaty by the end of 2009.

The Roadmap contains references to the need to transfer technology to developing countries, reduce deforestation, and assist the most vulnerable nations to adapt to the inevitable consequences of climate change. The decision to operationalize the global fund for climate adaptation, and to ensure that the voice of small island states and least developed countries is heard when allocating finance, is particularly encouraging. Significantly, the international community has recognized that “deep cuts in global emissions,” and a “long-term goal” for achieving those cuts will be required in any future climate agreement.

At first glance the Bali Roadmap seems cause for optimism, however, when viewed in a historical context, Bali, seems like another in a long line of failed promises and missed opportunities.

Many of the negotiators participating in Bali had an uneasy sense of going over old ground. Indeed today’s disagreements on common but differentiated responsibilities, binding or voluntary targets, and new and additional funds, are all too familiar, as is the shadow of a reluctant U.S. administration threatening to halt any progress towards an ambitious global consensus. Add China and India’s long-standing opposition to developing country commitments and the outlook seems bleak indeed.

James Gustave Speth is more qualified than most to pass judgment on the current impasse. He has spent four decades as a policy maker, advocate and academic specializing in the global environment and governance. Professor Speth has concluded:

If I were a young person being handed this problem by indulgent predecessors, I would be angry. For twenty years thoughtful people and intelligent leaders have known that we needed to get busy. Precious time has been wasted. And now a new generation has been given a climate problem that is deeper and more difficult. The current system of international efforts to help the environment simply isn’t working. The design makes sure it won’t work, and the statistics keep getting worse. We need a new design.

27. Id. at xii.
Our flawed design is the result of numerous deficiencies in our approach to climate change. The governance structure of the United Nations Framework Convention on Climate Change (UNFCC) and its Kyoto Protocol is cumbersome and prone to lowest common denominator solutions. Because all 193 parties have an equal voice in the negotiations, those who do not want real progress on advancing climate stabilization easily hijack the system. The results are targets that are inadequate for the problem we face, instruments that contribute little to meeting those targets, and enforcement/implementation systems that are ill-defined and lacking any real bite.

Our current model of economic development and market support also undermines climate action. Most governments persist in offering perverse subsidies and incentives to the most polluting industries, while failing to provide adequate support for carbon friendly technologies and practices. Funding for research and development has been falling throughout the industrialized world for three decades despite our growing need for innovation and new environmental technologies.

The result is that progress on the Bali Roadmap’s four negotiating pathways – mitigation, adaptation, technology, and financing is almost non-existent. Greenhouse gas emissions continue their steady climb, particularly in emerging economies; adaptation measures are poorly financed and too focused on infrastructure; technology transfers remain deadlocked around issues of intellectual property rights; and levels of financing are nowhere close to the amounts deemed necessary.

IV. In Search of Urgency and Ambition – a Rights-Based Approach to Climate Change

In March 2008, the United Nations Human Rights Council in Geneva adopted a resolution, which calls on the Office of the High Commissioner for Human Rights (OHCHR) to conduct a study into the relationship between climate change and the full enjoyment of human rights. The resolution, which was tabled by the Maldives and co-sponsored by more than seventy states, was adopted by consensus, was a landmark moment in framing human and social dimensions of climate change. The OHCHR is now preparing the study, which will form the basis of a full council debate on the subject in March 2009.

Throughout the past two years a series of initiatives by governments, international organizations, and NGOs have created a framework for exploring the interface between human rights and climate change. In addition to the initiative in Geneva, The Organization of American States (OAS) has adopted a resolution noting that climate change has an impact on sustainable development and could have consequences for the full
enjoyment of human rights. The Center for International Environmental Law (CIEL) and Earthjustice spearheaded the Inuit case at the Inter-American Commission on Human Rights. CIEL also helped to draft the Male Declaration on the human dimensions of climate change. The International Council on Human Rights Policy (ICHRP) published an extensive analysis of rights and climate change quickly followed by Oxfam International. A number of prominent international foundations including the Global Humanitarian Forum, the Realizing Rights Initiative and the Anna Lindh Foundation have all placed climate change, social justice, and human rights at the top of their agendas.

Although a specific human right to the environment has not yet been elaborated in a binding international convention, the fundamental right to an environment capable of supporting human society and the full enjoyment of human rights is recognized, in varying formulations, in the constitutions of over 100 states and directly or indirectly in several international instruments. Moreover, the evolving body of work mentioned above argues that associated climate impacts, including temperature rises; extreme weather events; threats to unique systems; changes in precipitation patterns; threats to biodiversity; and sea-level rises; undermine the realization of human rights including inter alia: life; food; health; standard of living; means of subsistence; housing; culture; indigenous peoples rights; and gender rights. This position is now accepted by the bulk of the international community and is very likely to be endorsed by the upcoming OHCHR study.

A human rights-based approach to climate change is grounded in an international human rights architecture, which spans more than 60 years. This vast body of laws, norms and principles provides an entry point through which we can develop new analysis and operational approaches to climate change. While there is no globally recognized international human right guaranteeing a safe and secure environment, and no specific right on climate change, there is scope for interpreting the existing range of political, civil, economic, social and cultural rights through a climate change lens.


Human rights are different because they are legal entitlements as opposed to simple preferences or policies. This implies they are not optional — anything that affects their enjoyment, whether by government design or omission, infringes on a legal right and is consequently prohibited under law.

A human rights based approach (to climate change) is a unifying conceptual framework through which we can improve our analysis of, and response to, global warming. By drawing on the normative authority of the international human rights architecture we can create an operational approach to climate change that empowers the vulnerable and marginalized; and promotes climate policies that are inclusive, integrated, and participatory; and results in outcomes that have legitimacy and local ownership, thus increasing the likelihood of success.

According to the UNDP a rights-based approach provides a big-picture analysis of climate change that is lacking in traditional scientific or cost-benefit assessments. The Human Development Report published in 2007 stresses that

> climate change confronts us with enormously complex questions that span science, economics and international relations. These questions have to be addressed through practical strategies. Yet it is important not to lose sight of the wider issues that are at stake. The real choice facing political leaders and people today is between universal human values, on the one side, and participating in the widespread and systematic violation of human rights on the other.31

The rationale is also clear for the International Council on Human Rights Policy (ICHRP). The recently published Climate Change and Human Rights: a rough guide argues that

> identifying likely transgressions of human rights thresholds would refocus attention on the human priorities that ought to drive debate. At the same time, building human rights assessments into long-term mitigation and adaptation scenarios would refine and improve policies, and provide criteria for their adoption or rejection.32

Kate Raworth’s argument stresses the practical benefits of a rights-based approach while also concentrating on the social justice aspect:

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,

31. UNDP, supra note 9, at 4.
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.\textsuperscript{33}

Many of the low-lying atoll states may face extinction by the end of the century, resulting in loss of citizenship and nationality for the inhabitants. This in turn will have vast implications for civil and political rights. As Francoise Hampson has pointed out, nationality and citizenship are rights in and of themselves, but they are also precursors to the bulk of other internationally recognized human rights. Is it possible to maintain a right to culture if an entire population is displaced and dispersed?\textsuperscript{34}

Essentially a rights-based approach provides four avenues for injecting urgency and ambition into climate action, while safeguarding the most vulnerable in society.

First, a rights-based approach provides a holistic and human perspective on the climate crisis. The core international human rights instruments cover a diverse range of economic, social, political, cultural and civil issue and so provide a wide lens through which to increase our understanding of climate impacts and enhance our analysis on how best to prepare climate change policy.

Second, by drawing on a body of human rights conventions, shared international laws, principles and values stretching back more than 60 years, a rights-based approach opens up new technical, policy and legal instruments for addressing climate change.

Third, human rights, by definition and design, focus on the most vulnerable people and communities on the planet. A rights-based approach provides a voice to these vulnerable groups. By focusing on aspects of social justice and equity, a rights-based approach constitutes a compelling moral and ethical argument for action, and so provides for more authoritative advocacy.

Fourth and crucially, a rights-based approach also helps to identify duties and obligations. Under international law, governments are required to respect, protect and fulfil human rights obligations. To respect and protect rights states must refrain from interfering with people's enjoyment of their rights. They must also prevent people's rights from being violated by third parties (such as by individuals, companies, or other countries). If a direct link can be established between climate change impacts and the enjoyment

\textsuperscript{33} Raworth, \textit{supra} note 30, at 8.

of rights this could impose a duty on states to pursue mitigation with greater urgency, ambition and diligence. To fulfill rights, states must take action to enable the full realisation of people’s rights. This could impose a duty on states to focus their adaptation measures on the most vulnerable communities within their jurisdiction.

These issues relate to assessing the human rights implications of climate impacts, however they are also vital in addressing climate action. Measures to mitigate greenhouse gases from carbon taxes to the use of land for the production of biofuels may have human rights implications. Similarly, adaptation measures such as relocating populations away from their indigenous and ancestral lands may.

Finally, there is a great deal of scope in examining how the application of human rights, particularly with regard to procedural rights (access to information, decision making, and justice) could provide effective policy instruments that contribute to global efforts aimed at climate stabilization. It is important that a rights-based approach deal with inequities between countries as well as impacts on rights within countries. Those who are immediately vulnerable to climate change have contributed little to its cause. Moreover, they lack the adaptive capacity to deal with its consequences. As a result, rights-based approaches should recognize the need for substantial additional resources in support of climate change adaptation.

V. Conclusion

In his powerful thesis from 1792 on the Rights of Man, Thomas Paine wrote “What Archimedes said of the mechanical powers, may be applied to reason and liberty: ‘had we’, said he, ‘a place to stand upon, we might raise the world.’” What was true of mechanics and liberty is also true of global warming.

In 2008 we need to raise the world on the issue of climate change. First, we need to raise the world’s attention to the human imperative of the 21st century and the immediate and devastating impact it is having on the most vulnerable people on our planet. Second, we need to raise the necessary political will to deliver an urgent and ambitious international consensus on how to address climate change. And third, we need to raise the appropriate funds to invest in mitigation and adaptation at a scale that is commensurate with the problem.

By stressing the human dimensions of climate change and drawing upon the moral, legal and political power of a rights-based approach we may identify our place to stand.