

## THE INFLUENCE OF JUSTICE THEORIES ON INTERNATIONAL CLIMATE POLICIES AND MEASURES

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*While the justice implications of climate change are well understood by the international climate regime, solutions to meaningfully address climate injustice are still emerging. This article explores how a number of different theories of justice have influenced the development of international climate regime policies and measures. Such analysis is undertaken by examining the theories of remedial justice, environmental justice, energy justice, social justice and international justice. This article demonstrates how each of these theories has influenced the development of international climate policies or measures. No one theory of justice has the ability to respond to the multifaceted justice implications that arise as a result of climate change. It is argued that a variety of lenses of justice are useful when examining issues of injustice in the climate context. It is believed that articulating the justice implications of climate change by reference to theories of justice assists in clarifying the key issues giving rise to injustice. This article finds that while there has been some progress by the regime in recognising the injustices associated with climate change, such recognition is piecemeal and the implementation of many of the policies and measures discussed within this article needs to be either scaled up, or extended into more far-reaching policies and measures to overcome climate justice concerns. Overall it is suggested that climate justice concerns need to be clearly enunciated within key adaptation instruments so as to provide a legal and legitimate basis upon which to leverage action.*

### I INTRODUCTION

Climate change is...chiefly an issue of (in)justice, since it has been caused by rich nations and poses risks upon the poor, who are the least responsible and the most vulnerable to the damages and risk associated with it.<sup>1</sup>

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The authors would also like to acknowledge the valuable contribution of Louise Kruger in the preparation of this article.

<sup>1</sup> Chukwumerije Okereke and Heike Schroeder, 'How can the objectives of justice, development and climate change mitigation be reconciled in the treatment of developing countries in a post-

While the relationship between those responsible for climate change and those likely to feel harm from climate change is being increasingly discussed within international climate change Conference of the Parties (COP) decisions and Intergovernmental Panel on Climate Change (IPCC) reports, considerations of climate justice have yet to be firmly embedded into policy responses and actions.<sup>2</sup> The issue of climate change has yet to be framed as an issue of injustice within international climate instruments. As such, the international climate change regime tends to recognise the existence of injustice, but does not frame climate change as a justice issue *per se*. This article argues that the recognition of injustice, along with the implementation of the policies and measures discussed, demonstrates a shift within the international climate change regime towards adopting approaches which respond to climate injustice, despite the lack of ‘justice’ terminology appearing explicitly in such policies and measures.

This article begins by explaining the unequal and disproportionate impact of climate change on developing states and outlines the need for more equitable responses to address vulnerability in developing countries and help build resilience. The paper then considers a number of justice theories and examines how each of these has influenced international climate regime policies and measures. Some suggestions are then made in the conclusion concerning the full realisation of, and response to, issues of climate injustice by the international climate regime.

Throughout the article the terms ‘developed’ and ‘developing’ are used to refer to what might also be described as ‘industrialised’ and ‘non-industrialised’ or ‘North’ and ‘South’ countries. It is acknowledged that the terms ‘developed’ and ‘developing’ fail to adequately represent the wide variety of economic, political and geographical diversity existing between countries in these broad categories. Richardson argues that these terms are unhelpful as they obscure the differences exist between countries and as such ‘assumptions of international climate law and other environmental law regimes built on crude distinctions between the North and South may therefore be problematic.’<sup>3</sup> Despite the limitations, this article will employ the terms ‘developed’ and ‘developing’ as a convenient means of describing states with different economic power or capabilities. This is done in the absence of commonly accepted categories delineating states according to their economic, geographical and political conditions. The terms ‘developed’ and ‘developing’ are also reflective of language used within international climate policies.

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Kyoto settlement?’ (Background Paper for the Discussion Group on Developing Countries and a post-Kyoto Global Deal at the DSA-DFID Policy Forum on Climate Change and International Development, Tyndall Centre for Climate Change Research) 1.

<sup>2</sup> The climate change regime already recognises injustice through the following mechanisms: Clean Development Mechanism, Reduced Emissions from Deforestation and Degradation and the Adaptation fund but this is not adequate. These initiatives have attached criticism for being incremental and marginal, rather than imposing justice responsibilities and obligations; provisions are voluntary and not defined with enough clarity; programmes are fragmented, poorly coordinated and excessively bureaucratic.

<sup>3</sup> Benjamin J Richardson *et al*, ‘Introduction: Climate Law and Developing Countries’ in Benjamin J Richardson *et al* (eds) *Climate Law and Developing Countries: Legal and Policy Challenges for the World Economy* (Edward Elgar, 2009), 1.

## II THE IMPACTS OF CLIMATE CHANGE ON VULNERABLE COMMUNITIES

While the precise nature of all climatic changes attributable to greenhouse gas emissions and the full range of consequential effects can not be known with absolute certainty, it is predicted that climate change impacts will be widespread and diverse.<sup>4</sup> Some changes are already being observed, and other general trends can be expected. The physical impacts will have a significant impact on communities, especially those with vulnerable ecosystems or limited financial and technological resilience levels.<sup>5</sup> Some of the predicted climatic changes include:

- Changes in temperature and rainfall patterns, which will have significant impacts on agriculture production;
- Salt-water inundation from rising sea levels leading to contamination of arable land and drinking water, as well as damaging infrastructure and forcing communities to move inland to higher ground;
- Increased frequency and severity of extreme weather events such as cyclones, floods and storm surges, threatening infrastructure and agriculture, as well as posing risks to human life;<sup>6</sup>
- Changes in biodiversity and in the migration patterns of species affecting the sustainability of communities who rely on hunting these species. This may also have significant cultural impacts, as communities are no longer able to carry out traditional practices or pass on these customs to younger generations;<sup>7</sup> and
- A wide variety of health impacts can be foreseen where communities are exposed to new diseases, or where food and/or water supplies are affected. It is anticipated that rising temperatures alone will lead to increased rates of heat-stroke, heart-attacks and other illnesses.<sup>8</sup>

The inequality of climate change arises from the fact that the communities most vulnerable to the associated impacts are those least responsible for the current levels of greenhouse gas emissions in the global atmosphere.<sup>9</sup> Two-thirds of the increase in atmospheric greenhouse gases over the past 150 years stem from industrialised countries.<sup>10</sup> It is therefore the previous emissions of industrialised nations that cause current global warming.<sup>11</sup> Developed countries are both the main contributors to

<sup>4</sup> Intergovernmental Panel on Climate Change, *Fourth Assessment Report: Summary for Policy Makers* (Cambridge University Press, 2007).

<sup>5</sup> Dorte Verner, 'Reducing Poverty, Protecting Livelihoods, and Building Assets in a Changing Climate: Social Implications of Climate Change for Latin America and the Caribbean' (The World Bank, 2010) 3.

<sup>6</sup> Intergovernmental Panel on Climate Change, above n 4.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid; Maxine Burkett, 'Just Solutions to Climate Change: A Climate Justice Proposal for a Domestic Clean Development Mechanism', (2008) 169 *Buffalo Law Review* 178; Sumudu Atapattu, 'Global Climate Change: Can Human Rights (and Human Beings) Survive this Onslaught?' (2008) 20 (1) *Columbia Journal of International Environmental Law and Policy* 35, 47.

<sup>9</sup> W Neil Adger, 'Scales of Governance and Environmental Justice for adaptation and mitigation of climate change' (2001) 13 *Journal of International Development* 921, 922-25.

<sup>10</sup> Bert Metz et al., 'Towards an equitable global climate change regime: Compatibility with Art 2 of the Climate Change Convention and the link with sustainable development' (2002) 2 *Climate Policy* 211, 212.

<sup>11</sup> Diana M. Liverman, 'Conventions of climate change: constructions of danger and the dispossession of the atmosphere' (2009) 35 *Journal of Historical Geography* 279, 289.

greenhouse gas emissions and the main beneficiaries of the profits generated by greenhouse gas emitting industries.<sup>12</sup> There is thus a tension between the competing interests of reducing global greenhouse gas emissions and promoting economic growth within developing states. It is recognised that the exercise of the right to development in many instances will result in more emission contributions from these states. Climate change can thus be viewed as raising a number of justice issues. Firstly, it is argued that developing nations bear a burden of climate change harm that is disproportionate to their contribution to greenhouse gas emissions and secondly mitigation of climate change through the limitation of industrial activities causing greenhouse gas emissions can be construed as interfering with developing countries' 'rights to development'. This article suggests that theories of justice should be used as the basis to create policies that address liability for climate mitigation; and remedy the harm arising from climate change suffered by vulnerable countries.

### A *Adverse Impacts for Developing Countries*

The adverse impacts of climate change are thought to have more serious ramifications for developing countries given their lack of financial and technological resilience. The 'adverse effects of climate change' are defined within the United Nations Framework Convention on Climate Change (Framework Convention) 'as the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare'.<sup>13</sup> The adverse impacts of climate change for developing countries can be categorised into four main trends.

The first trend relates to the geographical vulnerability of many developing country states. Article 4 (8) of the Framework Convention identifies the following countries as requiring assistance in responding to the adverse effects of climate change: small island countries; countries with low-lying coastal areas; countries with arid and semi-arid areas, forested areas and areas liable to forest decay; countries with areas prone to natural disasters; countries with areas prone to drought and desertification; countries with areas of high urban atmospheric pollution; countries with areas with fragile ecosystems, including mountainous ecosystems; and land-locked and transit countries. The plight of Small Island Developing States (SIDS), several of whom are also listed among the world's Least Developed Countries (LDCs)<sup>14</sup> has attracted media and academic interest, given the particularly devastating loss of culture and land associated with climate change in such regions.<sup>15</sup> The SIDS situation is often cited as one of the most severe cases of climate injustice, given the easily drawn link between the severe climate impacts on SIDS communities and their limited contributions to global greenhouse gas emissions.

<sup>12</sup> Ruchi Anand, *International Environmental Justice: A North-South Dimension* (Ashgate, 2004), 54.

<sup>13</sup> United Nations Framework Convention, U.N. Doc A/AC.237/18 (May 9, 1992), reprinted in 21 I.L.M. 849 [hereinafter Framework Convention] Article 1.

<sup>14</sup> For example, Kiribati, Maldives, Samoa, Solomon Islands, Tuvalu and Vanuatu, see United Nations, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States <<http://www.unohrrls.org/>>.

<sup>15</sup> Maryanne Loughry and Jane McAdam, 'Kiribati- Relocation and Adaptation' (2008) 31 *Forced Migration Review* 51.

The second adverse effect of climate change likely to be felt by developing countries relates to issues of food security and production. It is well established that people in developing countries often rely directly on agriculture or hunting in meeting their daily subsistence needs. In Asia and the Pacific 40-50% of the population is employed in agricultural activities, while in sub-Saharan Africa, two-thirds of the working population make their living from agriculture.<sup>16</sup> If agriculture production is disrupted in these regions (for example by crops failing or yields declining), the livelihoods of the rural poor will be put at risk and their vulnerability to climate change increased.<sup>17</sup> These impacts will also be felt at the urban level through disruptions in the supply chain, increased market prices and the loss of purchasing power. The objective of the Framework Convention seeks to ensure that food production is not threatened as a result of climate change.<sup>18</sup> However, the Food and Agricultural Organisation (FAO) states that climate change will affect all four dimensions of food security: food availability, food accessibility, food utilization and food systems stability.<sup>19</sup> Building resilience against food security includes the application of agricultural adaptation practices for existing crops, diversifying income sources and in extreme cases migration.

A third adverse impact of climate change relates to the special relationship that many indigenous groups and communities in developing communities have in connection with their land and resources. Not only is it common to have a heavy reliance on the environment in terms of subsistence farming, hunting or gathering, but for many of these communities the environment also plays an important cultural, social or spiritual role. Changes to the environment due to climate change can affect the survival of important totemic species and the availability of plants used for traditional medicines or rituals. When hunting represents an important cultural or social activity, changes to the distribution or migration patterns of prey species can reduce the ability to engage in these activities and to pass on traditions and skills to younger generations. The close relationship that many communities have with their surrounding ecosystem therefore puts them at risk of a wider range of impacts than communities in developed states.<sup>20</sup>

A fourth trend is population dislocation. As early as 1990, the Intergovernmental Panel on Climate Change recognised that the gravest effects of climate change will be upon those who are uprooted from their home as a result of shoreline erosion, coastal flooding and agricultural disruption.<sup>21</sup> The precise scale of displacement predicted as

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<sup>16</sup> Food and Agricultural Organisation (2008) 'Climate Change and Food Security: A Framework Document' available online <http://www.fao.org/forestry/15538-079b31d45081fe9c3dbc6ff34de4807e4.pdf> (accessed 2 March 2012).

<sup>17</sup> Intergovernmental Panel on Climate Change, above n 4; Bert Metz *et al.*, above n 10, 225.

<sup>18</sup> Framework Convention, Article 2.

<sup>19</sup> Food and Agricultural Organisation, above n 16.

<sup>20</sup> On the needs of indigenous people and climate change see E. Rania Rampersad, 'Indigenous Adaptation to Climate Change: Preserving Sustainable Relationship Through and Environmental Stewardship Claim and Trust Fund Remedy' (2008) 21 *Georgetown International Environmental Law Review* 591, 595.

<sup>21</sup> Intergovernmental Panel on Climate Change, *Report from Working Group II to IPCC: Summary for Policy Makers* (1990) 20.

a result of climate change is contentious,<sup>22</sup> however the secretariat of the Framework Convention has estimated that around 50 million people will have been displaced by climate change by 2010.<sup>23</sup> Though precise numbers of environmentally driven displacement are not available, it is expected that large-scale internal displacement will occur in Africa as a result of increasing desertification, and in the mega-delta regions of Asia, including in Bangladesh, India, and China, as a result of increased precipitation, flooding and sea level rise.

Displacement usually occurs due to a combination of factors, including:

- sudden-onset hydro-meteorological disasters;
- environmental degradation or slow-onset disasters (desertification, rising sea levels and droughts);
- significant permanent loss of territory as result of sea level rise; land being rendered unfit for human habitation due to the high risk of disaster or requiring climate adaptation activities; and
- unrest or armed conflict over diminished availability of natural resources such as water or agricultural land.<sup>24</sup>

Inhabitants of SIDS are particularly vulnerable to the predicted trends of climate change outlined above, as entire nations are at risk of being completely inundated by rising sea levels.<sup>25</sup> Many of the islands are low lying, with no recourse of relocation of populations to higher grounds.<sup>26</sup> Although the extent of sea level rise expected by the end of the century is disputed, with figures ranging from 28cm to 150 cm, land loss has already been reported in Tuvalu and Kiribati.<sup>27</sup> Prior to sea inundation, land will become unsuitable for human habitation as water for drinking and irrigation will become salinated and unusable, and arable land contaminated.<sup>28</sup>

The Cancun Adaptation Framework provides the climate change regime with authority to coordinate climate displacement policy by stating in clause 14 (f) that ‘parties should take measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned

<sup>22</sup> Bonnie Docherty and Tyler Giannini, ‘Confronting a Rising Tide: A Proposal for a Convention on Climate Change Refugees’ (2008) 33 *Harvard Environmental Law Review* 349, 353.

<sup>23</sup> Frank Biermann and Ingrid Boas, *Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees* (Global Governance Working Paper No 33, Amsterdam: 2007) 10.

<sup>24</sup> Walter Kalin, ‘Conceptualising Climate-Induced Displacement’ in Jane McAdam (ed) *Climate Change and Displacement: Multidisciplinary Perspectives* (Hart Publishing 2010) 81, 85; Fabrice Renaud *et al*, ‘Control, Adapt or Flee: How to Face Environmental Migration’ in *InterSecTions* (no 5/2007) 26; Roda Verheyen, *Climate Change Damage and International Law: Prevention, Duties and State Responsibility* (Martinus Nijhoff, 2005), 32.

<sup>25</sup> Eric Kwa, *Climate Change and Indigenous Peoples in the South Pacific: Need for Regional and Local Strategies* (Edward Elgar, 2009), 106-7.

<sup>26</sup> Maryanne Loughry and Jane McAdam, above n 15, 51.

<sup>27</sup> Roda Verheyen, above n 24, 310-13; Angela Williams, ‘Promoting justice within the international legal system – prospects for climate refugees’ in Benjamin J Richardson *et al* (eds), *Climate Law and Developing Countries: Legal and Policy Changes for the World Economy* (Edward Elgar, 2009) 84, 85.

<sup>28</sup> Ilona Millar, ‘There's no place like home: human displacement and climate change’ (2007) 14 *Australian International Law Journal* 75.

relocation where appropriate at national, regional and international levels'.<sup>29</sup> It is not yet clear how the regime will implement migration and planned relocation activities, as policies concerning these activities are yet to emerge within the COP framework. Clause 14 (f) has clarified that the climate change regime is the international institution responsible for climate displacement; however from a climate justice perspective, more substantial rights for these people and obligations for host countries are required in order for the meaningful implementation of this provision.

All of the above trends are compounded by the lack of economic and technical resources within developing countries that would allow for the implementation of adaptation measures.<sup>30</sup> One of the primary challenges for the adaptation regime is to ensure that parties contribute funds to assist vulnerable countries in implementing policies and practise to reduce vulnerability. Article 11 of the Framework Convention establishes a financial mechanism to provide financial resources and technology transfer to assist in the implementation of the convention. The Global Environmental Facility (GEF) carries out management of this fund. In addition to the GEF funds, there is also an adaptation fund operating under the Kyoto Protocol<sup>31</sup> and a Green Climate Fund, which funds adaptation activities in vulnerable countries. The existence of these funds demonstrates the intention of the regime to assist vulnerable countries in adapting to climate change. While these payments are not formally recognised as being provided to address the injustices associated with climate change, it is suggested that transfer of finance and assistance to reduce vulnerability demonstrates a desire of the regime to address climate injustice.

### III CLIMATE JUSTICE MOVEMENTS

The lack of formal recognition within the climate regime of the justice implications of climate change has led to the emergence of a series of global climate change networks calling for action to address climate injustice.<sup>32</sup> These networks frame climate change as a justice issue, as opposed to adopting the 'vulnerability' of 'disproportionate burden' language used within the international climate regime. The language of vulnerability is more science-based in nature, discussing the susceptibility of communities or ecosystems to a change in their conditions. Vulnerability hence seeks to measure how communities and ecosystems will respond to climate change, but does not call for correction of varying circumstances of vulnerability. The concept of justice derives from the social sciences, and seeks to ensure fairness for all, through the operation of mechanisms designed to remedy injustice. Justice therefore focuses on correcting imbalances, harms and other ills. Thus far the mitigation policies of the regime have favoured a scientific approach to regulating global greenhouse gas emissions, while the adaptation regime has instead taken a more human-centred approach to examining climate change.<sup>33</sup> It is therefore more likely for the language

<sup>29</sup> UNFCCC Report of the Conference of the Parties, FCCC/ CP/2010/7/Add.1, COP 16<sup>th</sup> sess, Agenda Item II Enhanced action on adaptation, clause 14 (f).

<sup>30</sup> Bert Metz *et al*, above n 10, 213.

<sup>31</sup> Kyoto Protocol to the UNFCCC, opened for signature 11 December 1994, U.N. Doc FCCC/CP/1997/7/Add.1 (entered into force 16 February, 2005).

<sup>32</sup> See, eg, the websites of the following groups: Mobilization of Climate Justice <<http://www.actforclimatejustice.org/about/what-is-climate-justice/>>; and Climate Justice: Enforcing Climate Justice Law <<http://www.climatejustice.org/>>.

<sup>33</sup> Marco Grasso, *Justice in Funding Adaptation under the International Climate Change Regime* (2010) Springer, Netherlands, 11.

of 'justice' to be incorporated within adaptation policies given their human-centred approach.

Baskin's work is useful in identifying the four fundamental arguments that underpin the climate justice movement.<sup>34</sup> There is a good deal of consensus around what is not fair or just in relation to climate change and the four arguments below merely serve as a summary of the discussions in the literature.<sup>35</sup> These fundamental points revolve around the four interrelated issues of:

1. The disconnection between those responsible for climate change and those who will feel the impacts of climate change;
2. The capacity of those likely to feel the impacts of climate change and their lack of resources to respond to such changes;
3. The rights to development seen as necessary by developing countries to ensure economic growth in their regions and the emissions associated with industrial forms of economic growth; and
4. The fact that the nature of climate change requires cooperative pragmatic action by all States; such cooperation will require solutions that are perceived as being just in nature by major players.<sup>36</sup>

#### IV THEORIES OF JUSTICE REFLECTED WITHIN INTERNATIONAL CLIMATE POLICIES AND MEASURES

Flournoy argues that environmental laws and policies should reflect normative and value judgements.<sup>37</sup> She argues that the value of environmental policy is weakened if neither the public nor the decision-makers articulate the ethical issues involved. This is because it makes it difficult to assess if existing environmental regulation is reflective or consistent with society's predominant views on environmental ethics.<sup>38</sup> This article has articulated some of the implications of climate change on vulnerable communities. This section will examine how the international climate regime is attempting to respond to these events. A range of justice theories have been used to examine the justice implications of climate change. They include: remedial justice;<sup>39</sup> environmental justice (encompassing distributive and procedural justice);<sup>40</sup> climate

<sup>34</sup> J. Baskin, 'Impossible Necessity of Climate Justice' (2009) 10 *Melbourne Journal of International Law*, 424.

<sup>35</sup> See, eg, the edited collection on this topic B. Richardson et. al., (ed) *Climate Law and Developing Countries: Legal and Policy Challenges for the World Economy* (2009) Edward Elgar Publishers.

<sup>36</sup> J. Baskin, above n 33.

<sup>37</sup> Alyson Flournoy, 'In Search of an Environmental Ethic', (2003) 28 (1) *Columbia Journal of Environmental Law* 63, 115. Twining defines normative jurisprudence as encompassing general questions about values and law including debates between and among positivist about the relationship between law and morals, whether law is at its core a moral enterprise and about political obligation and civil disobedience. William Twining, 'Law, Justice and Rights: A Global Perspective' in Jonas Ebbesson and Pheobe Okowa (eds) *Environmental Law and Justice in Context* (Cambridge University Press, 2009) 76, 82.

<sup>38</sup> Alyson Flournoy, above n 36, 115.

<sup>39</sup> Angela Williams, above n 27, 96.

<sup>40</sup> Achala Chandani, 'Distributive Justice and Sustainability as a Viable Foundation for the Future Climate Regime' (2007) 2 *Carbon Climate Law Review* 152.



justice;<sup>41</sup> energy justice;<sup>42</sup> and social justice.<sup>43</sup> The influence of John Rawls' theory of distributive justice<sup>44</sup> can be seen in many of the justice theories discussed within this article. Rawls' original theory of justice comprises two basic principles. The first is equality in the assignment of basic rights and duties. The second allows for differential treatment if it results in compensating benefits for everyone, and in particular for the least advantaged members of society.<sup>45</sup> Rawls' second principle of justice as fairness – which incorporates the principle that social and economic inequalities are to be distributed in a manner that accords the greatest benefit to the least-advantaged members of society<sup>46</sup> – can be seen to have a number of applications in the climate change context. Rawls' original definition of justice was drafted with the domestic sphere in mind, however it has been argued that the theory has application within the international sphere as well.<sup>47</sup>

At this stage, no single justice theory has taken dominance nor is one theory on its own capable of correcting all justice issues arising from climate change. The justice implications of climate change are complex and the causal issues in resolving responsibility and liability require consideration of a range of justice theories. No one theory of justice has the ability to respond to the multifaceted justice implications that arise as a result of climate change and it is argued that a variety of lenses of justice are useful in examining this issue. While each theory takes a different approach to correcting the injustices associated with climate change, this does not mean that the theories are incompatible with one another. Rather, these theories of justice are mutually supportive of one another: collectively they are better able to address all causes of injustice. It is therefore believed that it is best for the international climate regime to be influenced by, and rely upon, a range of justice theories in order to design a system that produces ethical and fair outcomes.

### A Remedial Justice

Theories of remedial justice attempt to construct just outcomes by seeking to ensure that a remedy is provided when a wrong has been suffered.<sup>48</sup> The ability of remedial justice to provide compensation or another remedy is a particular strength of this

<sup>41</sup> Maxine Burkett, above n 8, 170; W. Neil Adger, above n 9, 9; Karin Mickelson, 'Beyond a Politics of the Possible?: South North Relations and Climate Justice (2009) 10 *Melbourne Journal of International Law* 411.

<sup>42</sup> Lakshman Guruswamy, 'Energy Justice and Sustainable Development' (2010) 21 *Colorado Journal of International Environmental Law and Policy* 231, 234; Kandeh Yumkella, 'Keynote Address: Energy Justice Conference', (2010) 21 *Colorado Journal of International Environmental Law and Policy* 277, 278.

<sup>43</sup> Roger Kasperson and Jeanne Kasperson, *Climate Change, Vulnerability and Social Justice* (Stockholm Environment Institute, 2001).

<sup>44</sup> John Rawls, *A Theory of Justice* (Harvard University Press, 1971).

<sup>45</sup> John Rawls, *Justice as Fairness: A Restatement* (Harvard University Press, 2001); Frank Lovett, *Rawls's A Theory of Justice: Continuum Reader's Guides* (Continuum, 2011) 29.

<sup>46</sup> John Rawls, *A Theory of Justice*, above n 43, 303; John Rawls, *Justice as Fairness*, above n 44, 42.

<sup>47</sup> For expansion of Rawls' theory to the international sphere, see Thomas Pogge, 'World Poverty and Human Rights' (2005) 19 (1) *Ethics and International Affairs* 1.

<sup>48</sup> Some commentators have referred to this form of justice as corrective justice. Adler suggests that corrective justice imposes a duty on the agent (who has acted wrongfully and thereby caused loss to some individual) to repair the loss, Matthew D Adler, 'Corrective Justice and Liability for Global Warming' (2007) 155 *University of Pennsylvania Law Review* 1859.

theory of justice. However, this theory is somewhat limited in the environmental context as it is reactionary rather than preventative in nature. Remedial justice only operates once a wrong has been committed and in many instances it is very difficult to reverse damage suffered by environmental change or harm. The concept of remedial justice derives from the work of Aristotle who suggested that the role of judges was to make the parties equal by the imposition of a penalty. Often this would involve taking from the aggressor any gain they may have secured.<sup>49</sup> Williams states that the primary function of remedial justice is to rectify the wrong done to the victim, which involves correcting the injustice. Williams identifies the three requirements of a remedial justice action as:

- Parties are treated as equal;
- Damage is inflicted by one party to another; and
- Remedy seeks to restore the victim to the condition that he or she was in before the unjust activity occurred.<sup>50</sup>

The theory of remedial justice has started to influence climate policies and measures. Remedial justice influences can be seen through the establishment of funding mechanisms to assist developing countries in mitigation and adaptation strategies. Funding mechanisms and technology assistance transfer arrangements provide a remedy for damage suffered, or likely to be suffered, from climate related conditions without requiring parties to go through a judicial decision-making process to demonstrate the existence of a duty or infringement of an obligation. There are two mechanisms in particular within the climate regime where the influence of remedial justice theories can be traced; these are the Green Climate Fund and the proposed Loss and Damage Mechanism of the Convention. While there is some evidence of remedial justice approaches being applied by the climate change regime, it should also be noted that terms such as ‘justice’ are absent from such policies and that the two approaches discussed below are still evolving, which potentially leaves parties suffering associated climate change without a remedy or recourse. It should also be born in mind, that while these mechanisms are a positive development, these mechanisms alone are insufficient to repair the loss suffered by developing countries.

The Durban COP negotiations led to the launch of the Green Climate Fund.<sup>51</sup> The purpose of the Green Climate Fund is to be an ‘operating entity of the financial mechanism of the Convention to support projects, programmes, policies and other activities in developing countries related to mitigation including REDD-plus, adaptation, capacity-building, technology development and transfer’.<sup>52</sup> Most interestingly the board members of the Green Climate Fund are conferred with juridical personality and legal capacity to discharge their duties in managing the fund.<sup>53</sup> Particular quasi-judicial obligations are not specified, however the provision of juridical powers suggests a decision-making role for the board members. Decisions concerning the disbursements of adaptation funding are likely to arise when assessing

<sup>49</sup> Williams, above n 27, 91.

<sup>50</sup> Ibid.

<sup>51</sup> Green Climate Fund – Report of the Transitional Committee, Draft Decision – CP.17, COP, (2011).

<sup>52</sup> UNFCCC Report of the Conference of the Parties, FCCC/CP/2009/11/Add.1, COP 15<sup>th</sup> sess, Copenhagen Accord, art 6.

<sup>53</sup> Green Climate Fund – Report of the Transitional Committee, Draft Decision – CP.17, COP, (2011), art 12 (a).

compliance with administrative requirements and or determining the merit and necessity of the adaptation project/funding requested. The board of the Green Climate Fund will use their powers to determine the most appropriate use of adaptation funding. The creation of juridical powers for these purposes seems to anticipate that decisions about the disbursements of Green Climate Funds will be controversial in nature. Given that the Green Climate Fund will not be in a position to correct all climate injustices thorough financial transfer or assistance, reinforces the need for a judicial type body to decide upon allocations in a manner that is transparent, objective and ethical. The influence of remedial justice theories can be seen in this mechanism through the establishment of quasi-judicial powers for board members of the fund, which is reflective of Aristotle's concept of remedial justice.

The proposed Loss and Damage Mechanism of the climate regime seeks to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change, including impacts related to extreme weather events and slow onset events.<sup>54</sup> The Subsidiary Body for Implementation (SBI) of the Convention has been requested for information to be collected on the three topics below, and for recommendations to be made based on these findings during the COP 18 negotiations in 2012:

1. Assessing the risk of loss and damage associated with the adverse effects of climate change and current knowledge;
2. Range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events, taking into consideration experience at all levels;
3. Role of the Convention in enhancing implementation of approaches to address loss and damage associated with the adverse effects of climate change.

While theme one and two sound similar, the decision explains that that theme one is concerned with gathering information on data and information, while theme two is concerned with tools such as conventional and non-conventional innovative instruments that could be used in such cases. The decision requests the SBI to note the significant existing work on vulnerability and disaster within the climate change regime and other international regimes (for example the Hyogo Framework for Action: Building resilience of nations and communities to disasters) when gathering data and making recommendations. One of the innovative tools envisioned for dealing with loss and damage associated with climate change is insurance-based instruments. The Framework Convention has produced a paper entitled 'Mechanisms to manage the financial risks from direct impacts of climate change in developing countries'.<sup>55</sup> This paper proposes three different insurance models that could be developed to assist in managing the risk associated with climate change. Insurance-type instruments seek to ensure that remedy is provided when a harm is suffered and as such it is possible to see the influence of remedial justice on the development of proposed climate insurance tools.

<sup>54</sup> Work Programme on Loss and Damage, Draft Decision – CP.17, COP, (2011),

<sup>55</sup> FCCC/TP/2008/9, the details of this report are beyond the scope of the current paper.

## B *Energy Justice*

Energy justice is concerned with recognising the inequality that exists in accessing energy resources, and the associated health and environmental implications relating to the energy resources used.<sup>56</sup> Two-thirds of the world's population are fossil fuel energy users. While fossil fuel is environmentally destructive, it is highly efficient and allows its users to develop economically and socially. The remaining one-third of the world uses biomass energy sources which, while renewable in nature, are not as efficient as fossil fuels.<sup>57</sup> Biomass is generally used to cook and in some instances to provide lighting, but cannot generally be used for industrial or agricultural energy related purposes, hence limiting opportunities for its users to develop beyond the subsistence level. Dependence upon biomass acts as a barrier to development as those dependent upon this energy source are required to spend large amounts of time on a daily basis collecting resources for energy production, which impacts upon education and other livelihood activities. Another concern linked to biomass energy is the health implications associated with indoor pollution. A particularly startling figure suggests that indoor pollution is responsible for 1.6 million deaths per year in developing countries, which amounts to one life lost every 20 seconds.<sup>58</sup>

The climate change regime recognises that developing countries face a number of development challenges and that mitigation policies might not be the top priority of governments in some circumstances. The Preamble of the Framework Convention, reaffirmed in the Cancun Adaptation Framework, notes:

Reaffirming that social and economic development and poverty eradication are the first priorities of developing country Parties, and that the share of global emissions originating in developing countries will grow to meet their social and development needs.<sup>59</sup>

The theory of energy justice is principally concerned with ensuring that access to energy is more equitably available to all members of the global community. In addition, energy justice seeks to ensure that energy sources associated with increased health risks are phased out and replaced with sources that are reliable and sustainable. The aims of this theory are therefore clearly aligned with the aims of the international climate mitigation policies, which aim to allow for sustainable development to occur while reducing emissions by switching to cleaner and more efficient technologies.<sup>60</sup> The main mechanism for achieving this aim is the Clean Development Mechanism (CDM) of the Kyoto Protocol. The CDM is defined in Article 12 of the Protocol and allows for industrial countries to invest in emission reduction activities in developing countries and count these projects in meeting their emission reduction target.<sup>61</sup> The CDM has resulted in more than 3500 registered projects and an estimated reduction

<sup>56</sup> Yumkella, above n 41, 280.

<sup>57</sup> Lakshman Guruswamy, above n 41, 234.

<sup>58</sup> Ibid, 242.

<sup>59</sup> Framework Convention, Preamble and reaffirmed in United Nations Framework Convention on Climate Change: Report of the Conference of the Parties on its sixteenth sessions, held in Cancun from 29 November to 10 December, UN Doc FCCC/CP/2010/7, 8.

<sup>60</sup> For a summary of different energies see Dale Jamieson, 'Energy, ethics and the transformation of nature' in Denis Arnold (ed) *The Ethics of Global Climate Change* (Cambridge, 2011) 16, 22-28.

<sup>61</sup> Art 12 (10) Kyoto Protocol.

of 2.9 billion tonnes of CO<sub>2</sub> in the first commitment period of the Protocol (2008-2012).<sup>62</sup> Most CDM projects to date have taken place in developing countries moving towards industrialisation such as China, India, Brazil and Mexico. There are two arguments made in favour of prioritising CDM in such countries: firstly, greater emission reduction potential and secondly, the existence of regulatory and legal regimes to support CDM projects in such countries. Alternatively, others view the CDM as favouring certain nations effectively resulting in least developed countries missing out on CDM investment.<sup>63</sup> While there is room for improvements the operations of the CDM (improving processing delays, building capacity in least developed countries to host CDM projects and providing incentives for CDM investment in least developed and SID countries investment), the general objective of the CDM is sound. Future CDM investment in least developed countries has the potential to assist in providing a safe and secure energy resource for communities, thus assisting in meeting energy justice demands.

### C *Social Justice*

Social justice encompasses the idea of a more just ordering of society, in which all persons have their needs met more fully.<sup>64</sup> In the climate change context this has led to commentary on linking scientific evidence about environmental change with policy designed to address the vulnerability of local communities and environments susceptible to suffer harm as a result of climate change.<sup>65</sup> Rechtschaffen states that the 'same underlying racial, political, and economic factors that cause disproportionate environmental harms also are responsible for poor housing, poor quality schools, lack of employment opportunities, and other problems in many communities.'<sup>66</sup> This quote shows that social justice theory requires consideration beyond pure environmental or climate considerations. It requires analysis of the factors underlying poverty and inequality. North-South analysis of international environmental law argues that post-colonial economic policies perpetuate continued economic supremacy of the north and economic subordination of the south. Third world approaches to international law question this arrangement and seek for the implementation of a system that better recognises the inequities upon which the current system is constructed.<sup>67</sup> Mickelson challenges the global climate regime to move beyond politics of pragmatics, towards a system that would fundamentally alter the north's obligations by requiring actions and investments well outside of current comfortable levels.<sup>68</sup>

<sup>62</sup> UNFCCC, *Annual Report of the Executive Board of the Clean Development Mechanism to the Conference of Parties*, FCCC/KP/CMP/2011/3, 17 November 2011.

<sup>63</sup> Ruth Gordon, 'The Climate of Environmental Justice: Taking Stock – Climate Change and the poorest nations: further reflections on global inequalities' (2007) 78 *University of Colorado Law Review*, 1559, and Anne Prouty, 'The Clean Development Mechanism and its implications for Climate Justice' (2009) 34 (2) *Colombia Law Journal of Environmental Law*, 513.

<sup>64</sup> Clifford Rechtschaffen, 'Advancing Environmental Justice Norms', (2003) 37 *University of California Davis Law Review* 95.

<sup>65</sup> Kasperson and Kasperson, above n 42, 1.

<sup>66</sup> Rechtschaffen, above n 63, 100.

<sup>67</sup> Karin Mickelson, 'Rhetoric and Rage: Third World Voices in International Legal Discourse' (1998) 16 (2) *Wisconsin International Law Journal*, 353.

<sup>68</sup> Mickelson, 'Beyond a Politics of Possible?', above n 40, 423.

A social justice approach in the climate change context has to-date been applied as requiring a holistic assessment of relevant social, economic and political factors in addition to environmental factors. The concept of vulnerability is recognised most prominently within international adaptation policies. The Cancun Adaptation Framework invites all parties to conduct impact vulnerability and adaptation assessments including assessments of financial needs as well as economic, social and environmental evaluation of adaptation options.<sup>69</sup> Such assessments are carried out through the completion of National Adaptation Programmes of Action (NAPA) that provide a means for prioritising urgent and immediate adaptation needs for least developed countries (LDCs). The Nairobi Work Programme (NWP) on impacts, vulnerability and adaptation to climate change is undertaken by the Subsidiary Body on Scientific and Technological Advice. The objective of the NWP is to assist developing countries, including the LDCs and SIDS to:

- Improve their understanding and assessment of impacts, vulnerability and adaptation to climate change; and
- Make informed decisions on practical adaptation measures to respond to climate change on sound scientific, technical, social and economic bases, taking into account current and future climate change and variability.

In order to ensure that the work of the NAPA and NWP is effective, the Cancun Adaptation Framework requests developed countries to provide new and additional finance, technology and capacity-building assistance to ensure that measures are put in place to protect those vulnerable to climate change.<sup>70</sup> The operation of the Adaptation Framework is dependent upon the parties depositing funds pledged. One of the biggest challenges for the adaptation regime is to increase the funding available for these types of projects. Another challenge is the establishment of national implementing entities (adaptation funding is only provided to countries with an accredited national implementing entity). Some of the most vulnerable and least developed countries require adaptation funding, but will require significant capacity building in order to be able to establish national implementing entities.<sup>71</sup> The further evolution of and implementation of adaptation policies and measures will significantly assist in addressing social justice concerns associated with climate change.

## D *Environmental Justice*

The most common theory to be analysed in connection with climate change is that of environmental justice.<sup>72</sup> This theory requires that society distribute the benefits and burdens of environmental resources in an equitable and fair manner.<sup>73</sup> The concept of

<sup>69</sup> UNFCCC, above n 69, clause 14 (b).

<sup>70</sup> Ibid, clause 18.

<sup>71</sup> These challenges are recognised by the regime UNFCCC, National Adaptation Plans, Draft decision – CP.17 (2011). See art 21 which urges developed country Parties to mobilise funding and art 12 which sets out a number of modalities to be used in assisting least developed countries to implement national adaptation plans.

<sup>72</sup> Chandani above n 39, 155; Albert Mumma and David Hodas, 'Designing a Global Post-Kyoto Climate Change Protocol that Advances Human Development' (2007) 20 *Georgetown International Environmental Law Review* 619, 639.

<sup>73</sup> Klaus Bosselman and Benjamin J Richardson, *Environmental Justice and Market Mechanisms: Key challenges for environmental law and policy* (Kluwer Law, 2009) 9.

environmental justice is often defined to include notions of both distributive and procedural justice.<sup>74</sup> Distributive justice in the climate change context is concerned with both the distribution of liability for mitigating climate change and the distribution of the adverse effects of climate changes. Procedural justice provides an opportunity for those who will be impacted by environmental change to be consulted and their opinions represented within the policy responses and measures.<sup>75</sup> Anand's work describes how the two concepts operate in the context of the international climate change framework. In relation to distributive justice, relevant issues include attributing responsibility for past emissions, allocating future rights to emit and sharing the costs of mitigation and adaptation.<sup>76</sup> Anand explains that these factors have a practical as well as ethical dimension, as different conceptions of what constitutes distributive justice will affect states' attitudes towards proposed international efforts: states are unlikely to support an international response which they do not view as fair and equitable.<sup>77</sup> Anand also demonstrates the significance of procedural justice in the context of the UNFCCC. She highlights the handicapped negotiating power of developing countries at international climate negotiations,<sup>78</sup> and the ideological and administrative dominance of the North, stressing the importance of developing mechanisms and procedures that all states can view as fair.<sup>79</sup>

Environmental justice focuses solely on environmental risks to human communities.<sup>80</sup> It is an anthropocentric approach to justice, which focuses on the distribution of environmental harms and benefits between individuals and communities.<sup>81</sup> It can therefore be distinguished from ecological justice, which is concerned with the relationship between human communities and the natural world, in particular, nature's claim to a sharing of the earth's resources (which can be described as an eco-centric approach to justice).<sup>82</sup> Environmental justice should also be differentiated from environmental racism, which refers to racial discrimination in the enforcement of environmental laws, thus confining its examination to the inequitable distribution on the grounds of race only.<sup>83</sup> Environmental justice focuses not only on remedying the maldistribution of environmental burdens and benefits, but also aims to prevent maldistribution from arising in the first place. This preventative nature of environmental justice complements the compensatory nature of remedial justice discussed above.

The concept of distributive justice underpins the design of the climate mitigation framework and is implemented through the principle of common but differentiated responsibility (CBDR). The concept of CBDR adopts a substantive approach to justice by recognising that different groups before the law require different rights and

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<sup>74</sup> Ibid.

<sup>75</sup> Rechtschaffen, above n 63, 100.

<sup>76</sup> Ruchi Anand, above n 12, 27

<sup>77</sup> Ibid 26.

<sup>78</sup> Ibid 41.

<sup>79</sup> Ibid 44.

<sup>80</sup> David Schlosberg, *Defining environmental justice: theories, movements, and nature* (Oxford University Press, 2007) 12.

<sup>81</sup> Jeffery Atik, 'Commentary on the relationship between environmental rights and environmental injustice' (2004) 2 (11) *Human Rights Dialogue* 26.

<sup>82</sup> Brian Baxter, *A Theory of Ecological Justice* (Routledge, 2005).

<sup>83</sup> Maria Ramirez Fisher, 'On the road from environmental racism to environmental justice', (1994) 5 *Villanova Environmental Law Journal* 449, 450.

responsibilities. The principle operates to recognise the historical differences in the contribution of developed and developing countries to climate change and the difference in their respective economic and technical capacity to respond to these problems.<sup>84</sup> As such, the principle recognises:

- The common responsibility of countries to protect the environment;
- The differing contributions of countries to climate change; and
- The differing abilities of countries to prevent, reduce and control the threat of climate change.<sup>85</sup>

The Framework Convention recognises that developed countries should take the lead in combating climate change and the adverse effects thereof,<sup>86</sup> while the Kyoto Protocol only creates binding mitigation reduction goals for developed countries. Responsibility for mitigating climate change is therefore the burden of developed countries, who are held ethically accountable for the current level of greenhouse gas emissions within the atmosphere. The Framework Convention recognises the vulnerability of certain countries, regions and people to climate change but does not frame the mitigation of climate change as a justice issue. As such, mitigation obligations are accepted on the basis of seeking to achieve the Framework Convention's ultimate objective of stabilising greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous anthropogenic interference with the climate system.<sup>87</sup> The distribution of mitigation liability is therefore consistent with the objectives of distributive justice, and formal recognition of distributive justice occurs through the operation of CBDR in the mitigation regime.

The Framework Convention, adaptation policies and measures deals with the distribution of the adverse effects of climate change. Article 4 (1)(f) of the Framework Convention obliges parties to cooperate in preparing for adaptation to climate change impacts, particularly in Africa and areas affected by drought, desertification and floods. Mendelsohn's research examined the impact of climate change across the globe using two variables, income per capita and impact per Gross Domestic Product,<sup>88</sup> and found that both variables have serious distributional impacts across countries grouped by income per capita. They predict that poor countries will suffer the bulk of the damage from climate change. This finding aligns with the environmental justice movement's foundational position that poor, minority and urban neighbourhoods are exposed to dirtier air, water and soil compared to affluent, white and suburban neighbourhoods.<sup>89</sup>

<sup>84</sup> Kati Kulovesi and Maria Gutierrez, 'Climate Change Negotiations Update: Process and Prospects for a Copenhagen Agreed Outcome in December 2009', 18 (3) *Review of European Community and International Environmental Law* (2009), 229, 236.

<sup>85</sup> Williams, above n 27, 90.

<sup>86</sup> Framework Convention, art 3 (1).

<sup>87</sup> Framework Convention, art 2.

<sup>88</sup> Robert Mendelsohn *et al.*, 'The distributional impact of climate change on rich and poor countries' (2006) 11 *Environmental and Development Economics* 159.

<sup>89</sup> Robert J Klee, 'What's Good for School Finance Should Be Good for Environmental Justice: Addressing Disparate Environmental Impacts Using State Courts and Constitutions' (2005) 30 *Columbia Journal of Environmental Law* 135, 139.; Felix Ekardt and Antonia von Hovel, 'Distributive Justice, Competitiveness and Transnational Climate Protection: "One Human – One Emission Right"' (2009) 1 *Climate and Carbon Law Review* 102, 102.



The theory of environmental justice clearly has an important role to play in the adaptation regime. Environmental justice is the best theory to apply when seeking to formally recognise that the adverse effects of climate change will be disproportionately felt most by those who bear least responsibility for the problem. Those who will bear the brunt of the adverse effects of climate change are also those who have benefited the least from the technological advances flowing from carbon emitting industries, and who also have the lowest capacity to adapt to climate change effects. Environmental justice not only recognises maldistribution, but also searches for ways to remedy it, which distinguishes it from the vulnerability language presently used by the climate regime. It is suggested that climate justice concerns would be more meaningfully addressed if the concept of environmental justice was formally recognised within future adaptation policies. This would provide a legal basis for implementing programs to alleviate the suffering of those vulnerable to the adverse effects of climate change.

## V THEORIES OF INTERNATIONAL JUSTICE AND ENVIRONMENTAL LAW

The final theory of justice explored in this article is based on Shelton's work, which explores the concept of international justice and environmental law. This theory of justice draws together a number of the elements of justice from the theories discussed above, to ultimately find that justice in relation to international environmental law requires 'a rational sharing of the burdens and costs of environmental protection, discharged through the procedural and substantive adjustment of rights and duties.'<sup>90</sup> This definition is provided after working through the three concepts of morality, equity and law as applied to the international legal order. This concept of international justice and environmental law is thus similar to the concept of environmental justice discussed above, though this theory was designed specifically with the international realm in mind.

Shelton's work on equity examines the distribution of rights and responsibilities in conditions of scarcity or inequality. She finds that while there is consensus that the concept of equity (meaning fairness) is of crucial significance when considering international justice, what remains contentious is the question of which principle or theory should be applied to correct the inequality. Possible principles or theories include: decision-making frameworks based on need, capacity, or prior entitlement; retributive justice (or just deserts); utilitarianism (the greatest good for greatest number); or strict equality of treatment.<sup>91</sup> The climate change regime tends to use a need or capacity based criteria as the basis for its decision-making framework. The law of equity provides a number of legal maxims that can be borrowed and used to implement policies and measures that are fair at the international level. Such maximums include:

- *Equity contra legem*: allows for adjustments to be made in order to fulfil the underlying and overarching purpose for which the law was adopted;

<sup>90</sup> Dinah Shelton, 'Describing the elephant: international justice and environmental law' in Jonas Ebbesson and Phoebe Okowa (eds) *Environmental Law and Justice in Context* (Cambridge, 2009) 55, 72.

<sup>91</sup> Ibid 59.

- *Equity prater legem*: allows equity to provide a basis for decision-making in the absence of law or when it is necessary to fill gaps in the existing norms; and
- *Equity infra legem*: recognises that circumstances may require differential treatment in order to achieve a just result and sees equity as the rule of the decision.<sup>92</sup>

The principle of *equity contra legem* requires consideration of the overarching objective of the law in question. The main objective of the international mitigation policy is found in Article 2 of the Framework Convention which requires:

stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure food production is not threatened and to enable economic development to proceed in a sustainable manner.<sup>93</sup>

In meeting this objective it was formally recognised that developed countries should take the lead in reducing emissions and the Kyoto Protocol<sup>94</sup> did not set any binding emission reduction targets for developing countries. Such an adjustment was made on the basis of historical contributions to global emissions, recognising a right to development and practical considerations about developing countries' capacity to implement emission reduction policies and practices. At the Cancun COP negotiations it was acknowledged that all countries must reduce emissions, otherwise it will not be possible to stabilise global emission levels.<sup>95</sup> Such developments mean that the adjustment made in recognising historical contributions has been adjusted yet again to reflect the practical reality that significant emission cuts are required and are in the interest of the global community. The principle of *equity infra legem*, which allows for differential treatment, is implemented in climate mitigation policies through the principle of CBDR. As discussed above, this principle is recognised in the Framework Convention<sup>96</sup> and in the Kyoto Protocol.<sup>97</sup> Shelton's work demonstrates that the language of justice has application and relevance at the international level, with or without formal recognition with multilateral environmental agreements.

## VI PRINCIPLES OF CLIMATE JUSTICE

The Bali Principles of Climate Justice<sup>98</sup> were developed for incorporation into the final preparatory negotiations of the Bali Earth Summit negotiations in 2002. The principles were developed in a bottom up, participatory approach and were created by non-state actors, including bodies such as CorpWatch, Third World Network, Oil

<sup>92</sup> Ibid 58- 63.

<sup>93</sup> Framework Convention, art 3.

<sup>94</sup> Kyoto Protocol to the UNFCCC, opened for signature 11 December 1994, U.N. Doc FCCC/CP/1997/7/Add.1 (entered into force 16 February, 2005).

<sup>95</sup> The Cancun negotiation led to the individual mitigation pledges from 80 countries and includes all the world largest emitters who are combination of developed and developing countries.

<sup>96</sup> UNFCCC, art 3 (1).

<sup>97</sup> Kyoto Protocol, art 10.

<sup>98</sup> Amit Srivastava, *Bali Principles of Climate Justice* (CorpWatch US, 2002) <<http://www.cbcal.org/pdf/bali-principles.pdf>> at 1 September 2010.

Watch and the Indigenous Environmental Network. These principles are influenced by the justice theories discussed in this article and the adoption of these principles within the international climate regime would assist in ensuring that the climate mechanisms discussed addressed climate justice concerns. The principles are yet to be formally acknowledged by the international climate change regime, though it is suggested that application of these principles within current climate modalities would be a logical way to respond to calls for climate justice.

The Bali Principles are an example of transnational non-state regulation. Transnational regulation, being voluntary in nature, generally works well when the regime is able to provide a benefit or incentive to induce membership and compliance. These principles do not provide any real incentives to States, as adoption of these principles would increase obligations and costs for states compared with the adoption of the international climate change regime's obligations. The lack of an incentive within this agreement means that it is more likely to provide value as a model instrument on climate justice (providing a comprehensive checklist of climate justice considerations) than as a means of regulation. The Bali Principles of Climate Justice directly address the issues of distribution, remediation and historical fault and provide a framework for responding to these issues. Model instruments are also useful in providing a vision and common goal for the wide range of advocates representing vulnerable communities' interests at United Nations climate change negotiations.

The preamble to the principles notes that the impacts of climate change are disproportionately felt by Small Island States, women, youth, coastal people, local communities, indigenous peoples, fisher fold, poor people and the elderly. The preamble is followed by the creation of 27 key principles of Climate Justice. The principles call for some innovative approaches including:

- Principle 5 demands that communities affected by climate change play a leading role in national and international processes to address climate change;
- Principle 7 requires recognition of the ecological debt that industrialised govern-ments and transnational corporations owe the rest of the world as a result of their appropriation of the planet's capacity to absorb greenhouse gases;
- Principle 9 aims to protect the rights of victims of climate change and associated injustices and to ensure they receive full compensation, restoration and reparation for loss of land, livelihood and other damages;
- Principle 12 aims to create a right of all people to affordable and sustainable energy production; and
- Principle 16 is useful in defining a purpose and aim of an international climate justice framework. It provides that a climate justice framework is committed to preventing the extinction of cultures and biodiversity due to climate change and its associated impacts.

The principles listed above have been influenced by justice theories. Principle five is directly reflective of rights of self-determination and procedural justice, asserting the rights of communities to play a leading role in the development of policies that will affect them. In order for this to occur, consultation with representatives of affected communities should take place and international legal policy options should be

explained in order to gain community feedback about the desired responses or requirements of the community. Principle seven is based on the theory of environmental justice and moves further than the CBDR approach of the current mitigation regime to an acknowledgement that developed countries owe an ecological debt to developing countries. Implementation of this principle would likely involve the significant transfer of finance and technologies generated as a result of greenhouse gas emissions, which would have ramifications for state and non-state actors, including multi-national corporations. Given that public international law is only able to regulate actions of state actors, this would require states to create obligations for corporations and individuals to effect the transfer of finance and technologies. Remedial justice theories are reflected in principle 9, which requires victims of climate change to receive full compensation, while principle 12 reflects energy justice concerns. A modified version of principle 9 could therefore be imported in the Green Development Fund and principle 12 could be used to influence future CDM policy. Future legally-binding adaptation instruments should use these principles as the basis for policy development, as a means of ensuring that climate justice concerns are integrated into international climate policies and responses.

## VII CONCLUSION

The international climate change regime is cognisant of the justice implications of climate change. The response to these concerns is still evolving and progress is being achieved in a slow and incremental manner. This article has demonstrated that elements of remedial justice, energy justice, social justice, environmental justice and international justice are all evident within the architecture of the climate regime. All of the theories are collectively useful in identifying the multifaceted climate justice issues confronting vulnerable groups. While these theories of justice have influenced the policies and measures of the international climate change regime, the regime has stopped short of framing climate change as a justice issue. This article has also argued that the language of justice is important in the climate change context. Such an argument has been advanced on the basis of the existence of a series of global networks calling for climate justice, alongside the existing recognition of the climate regime of the disproportionate burden that climate change will present to some countries and people. The language of justice and the principles and maxims of equity should be formally recognised within key adaptation instruments, so as to better protect those vulnerable to climate change. The language of vulnerability currently favoured by the adaptation regime, recognises the existence of inequality in the distribution of climate change harm, but does not call for the rectification of such harm. It is suggested that the language of justice is able to recognise inequality in distribution and provides a basis for action to address injustice. The language of justice is consistent with many of the policies and measures discussed in this article and it is argued that formal inclusion of justice terminology within key adaptation instruments is logical on this basis. However, the most important issue from a climate justice perspective is not the formal inclusion of justice terminology within key instruments, but is instead the expansion and implementation of the existing policies and measures discussed in this article seeking to rectify the adverse effects of climate change on vulnerable communities.