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Note

Distributing Emissions Rights in the Global Order: The Case for Equal Per Capita Allocation

Rachel Ward Saltzman[†]

I. INTRODUCTION

It is widely accepted that citizens of the wealthiest nations have contributed the most to climate change through high consumption and greenhouse gas-intensive production, and that, in turn, climate change is geographically most threatening to some of the world's poorest persons. This inequitable situation – where the consumption habits of the wealthy are understood to produce observable adverse effects on the less well-off – suggests that assigning responsibility for climate change should involve an appeal to principles of distributive justice. A just solution to climate change has two main components. First, it should satisfy a goal of equal treatment by rebalancing the existing distribution of economic and political influence in order to give all nations the ability to shape the global institutions that affect them. Second, it should reduce total global emissions while equalizing among nations the consumption of greenhouse gas-producing goods and activities. This Note suggests that the best way to satisfy both requirements is to implement equal per capita allocation of emissions rights (EPCA).¹

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1. Richard Starkey, *Allocating Emissions Rights: Are Equal Shares, Fair Shares?* 5 (Tyndall Ctr. for Climate Change Res., Working Paper No. 118, 2008) (introducing the acronym "EPCA").

This Note begins in Part I with an account of the ethical considerations that have so far figured into the international climate policy debate. In concluding that these considerations are not sufficiently deep, Part II appeals to a vision of global institutions that has been advanced by human rights philosopher Thomas Pogge. As Pogge has argued, the world's most important economic institutions are now interconnected such that they give rise to transnational demands of justice.² Part III explains why the very nature of climate change as a global problem gives weight to the assertion that duties of justice apply across state borders. Further, the global institutional order gives rise to duties that are even deeper than those that Pogge suggests. Remedies that provide for compensatory wealth transfers without altering the underlying scheme of entitlements not only frustrate the right of all human beings to have a hand in shaping the institutions that affect them, but also sustain a morally arbitrary distribution of advantage. An initial indictment of the international negotiating framework therefore can be deepened in a way that is particularly important for the climate change context: climate negotiators for wealthy nations cannot fulfill their extant duties to persons in other countries simply by agreeing to arbitrarily more stringent reduction targets. Rather, as I argue in Part IV, they hold a full duty of equal distribution when it comes to emissions rights. Part V concludes by providing a series of suggestions for institutional reform.

II. A CRITIQUE OF THE CLIMATE NEGOTIATIONS FRAMEWORK

International climate negotiations to date have consistently emphasized the need for developed countries to take on the financial burden of addressing climate change. The rationale for placing greater requirements on developed countries has so far sounded in both corrective and distributive justice. Under a "responsibility" notion of equity, industrialized countries are required to pay for emissions reductions because they have historically produced the bulk of the greenhouse gas emissions that cause climate change. This approach, sometimes called the "polluter pays" principle, is a corrective justice measure that reflects what Jules Coleman and Arthur Ripstein call the "principle of fairness": the idea, central to tort law, that people should bear the costs of their own activities.³ Further, under an "ability to pay" notion of equity, developed countries are expected to pay for the bulk of mitigation because they have greater resources and, therefore, the capacity to do so.⁴ In contrast to the polluter pays principle, which entails identifying certain actors as having caused climate change, the "ability to pay" approach is distributive in nature, drawing on considerations of equality and social welfare.

Both conceptions of equity have figured, at least facially, in the

2. See THOMAS POGGE, *WORLD POVERTY AND HUMAN RIGHTS* (2d ed. 2008).

3. Jules Coleman & Arthur Ripstein, *Mischief and Misfortune*, 41 MCGILL L. J. 91, 94 (1995).

4. Joseph E. Aldy, *Per Capita Carbon Dioxide Emissions: Convergence of Divergence?*, 33 ENVTL. & RESOURCE ECON. 533, 534 (2006).

assignment of emissions reduction targets. The Kyoto Protocol, hailed as the “first step”⁵ toward effective international emissions allocation, introduced binding caps on emissions for developed country signatories only.⁶ Kyoto’s text invoked the principle of “common but differentiated responsibilities” (CBDR),⁷ first introduced in the Rio Declaration in 1992⁸ and repeated by the United Nations Framework Convention on Climate Change (UNFCCC).⁹ Before Kyoto, the Rio Declaration had presented CBDR not only as a response to “the different contributions to global environmental degradation” of different nations, but also as an acknowledgement of “the pressures [societies of developed countries] place on the global environment and of the technologies and financial resources they command.”¹⁰ In describing both the imbalance in historical responsibility for climate change and the resource-intensive nature of life in developed countries, the Rio Declaration treated both corrective and distributive justice as relevant to a determination of who should bear the costs of climate change.

The relatedness of corrective and distributive justice concerns accounts for the Rio Declaration’s reliance on both sets of principles. Historically high levels of emissions-intensive production – which provide potential grounds for applying corrective justice remedies – have facilitated the generation of wealth in developed countries, in turn raising questions of distributive justice.¹¹ Historical emissions are therefore closely related to ability to pay. This interconnectedness is not unique to the climate change context. As Coleman and Ripstein have pointed out, problems of corrective and distributive justice are, in general, fundamentally the same:¹² the value of distributive shares will fluctuate depending on which transfers are considered wrongful.¹³ Because only “wrongful” transfers require correction, establishing duties under both corrective and distributive justice relies on how we draw the line between losses that require compensation and losses that should be allowed to lie where they fall. In this Note, I will focus on the need to ground responsibility for climate

5. Scott Barrett, *Climate Treaties and the Imperative of Enforcement*, 24 OXFORD REV. ECON. POL’Y 239, 241 (2008) (“Kyoto was to be followed by a sequence of other agreements . . .”).

6. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 (Dec. 1998) [hereinafter Kyoto Protocol].

7. *Id.* art. 10.

8. United Nations Conference on Environment and Development, June 3-14, 1992, *Rio Declaration on Environment and Development*, ¶ 7, U.N. Doc. A/CONF.151/26 (Aug. 12, 1992) [hereinafter Rio Declaration].

9. United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 107 [hereinafter UNFCCC].

10. Rio Declaration, *supra* note 8, ¶ 7; see also Kyoto Protocol, *supra* note 6, art. 10; UNFCCC, *supra* note 9 (calling for cooperation by all countries “in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions”).

11. See, e.g., Eric A. Posner & Cass R. Sunstein, *Climate Change Justice*, 96 GEO. L.J. 1565 (2008).

12. See Coleman & Ripstein, *supra* note 3.

13. *Id.* at 93.

change harms in principles of distributive justice. My argument, however, should not foreclose the possibility of a parallel need for remedies in corrective justice.

In spite of its rhetoric, Kyoto's commitment to equality as actually expressed in the UNFCCC negotiations is not particularly deep. The text of the Kyoto Protocol addressed disparities in development through its commitment to CBDR. Substantively, the treaty acknowledged concerns about equity by imposing emissions reductions requirements on developed countries but not developing countries. But the UNFCCC negotiations process allowed economically powerful states to obtain caps that squared with their capacity to reduce relative to current emission levels, while still protecting their economic advantage. Worse, the world's largest per capita polluter – the United States – refused to join the treaty even after exerting significant bargaining power to shape it.¹⁴ Kyoto has ultimately failed its own commitment to principles of distributive justice by providing for insufficient reductions.¹⁵ In setting caps that were too high to avert the harmful effects of climate change, Kyoto has continued to jeopardize the security interests of those who are most vulnerable to those effects.

Critics of existing climate policy have argued that the Kyoto regime's failure to place more stringent limits on emissions in developed countries violates the rights of persons in developing countries.¹⁶ Political officials in China and India, in rejecting recent suggestions that developing countries should take on binding targets in the next international agreement, have been particularly vocal about the need for a climate regime that reflects principles of distributive justice. In a rare interview with *Financial Times* in February 2009, Chinese Premier Wen Jiabao noted that "it [was] difficult for China to take quantified emission reduction quotas" at Copenhagen that year because China is still in the early stages of development.¹⁷ At the G8 summit in L'Aquila, Italy, on July 8, 2009, both China and India refused to commit to specific goals for cutting emissions by 2050.¹⁸ Objections to new commitments for developing countries often depend on a declared "right to development" – a distributive justice concept that suggests that developed countries must take responsibility for necessary emissions reductions as long as there are gross economic inequalities among

14. Stephen M. Gardiner, *Ethics and Global Climate Change*, 114 *ETHICS* 555, 594 (2004) ("[T]he United States effectively molded the agreement to its will, persistently objecting when other countries tried to make it stronger. But then it abandoned the treaty, seemingly repudiating even those parts on which it had previously agreed.").

15. Barrett, *supra* note 5, at 244 ("It is widely acknowledged that Kyoto's emission limits are inadequate. . . .").

16. Bruce Tonn, *An Equity First, Risk-Based Framework for Managing Global Climate Change*, 13 *GLOBAL ENVTL. CHANGE* 295, 297 (2003) ("It is the perception that emission caps were negotiated with the intention of keeping emissions higher in the developed countries than in developing countries far into the future, thereby maintaining existing international economic inequalities.").

17. Lionel Barber, *Transcript: Wen Jiaba*, *FIN. TIMES*, Feb. 2, 2009, available at <http://www.ft.com/cms/s/0/795d2bca-f0fe-11dd-8790-0000779fd2ac.html>.

18. Peter Baker, *Poorer Nations Reject a Target on Emissions Cut*, *N.Y. TIMES*, July 8, 2009, at A1.

nations.¹⁹

One proposal for establishing a more just climate scheme is to replace Kyoto's tentative distributive commitments with a policy mechanism that recognizes the right to emit as belonging equally to each human being²⁰ – an idea that has been termed “equal per capita allocation” (EPCA).²¹ Although, unsurprisingly, no politician in the United States or Europe has taken seriously the idea of allocating emissions rights on a per capita basis, the Indian government in particular has been particularly outspoken about supporting this approach. Prime Minister Manmohan Singh, in his June 2008 speech on the release of India's first Climate Change Action Plan, declared that “[e]very citizen of this planet must have an equal share of the planetary atmospheric space. Long term convergence of per capita emissions is, therefore, the only equitable basis for a global compact on climate change.”²² Allocation of emissions rights, under this view, should cease to reflect the economic muscle of the wealthiest nation states, and should instead be conducted on a worldwide per capita basis.

This point of view, addressing what many regard as unabashed self-serving behavior on the part of wealthy nations, is contrary to the conception of rights and duties that shapes the existing treaty framework. According to traditional social contract theory, the nation state is the principal unit for systems of justice.²³ John Rawls and Ronald Dworkin, for example, have argued that duties of justice are inherently political or “associative,” meaning that they arise only in the context of a nation state made up of citizens who are all subject to the coercive power of the state.²⁴ Thomas Nagel argues that state-centric associative duties should continue to inform our view of justice, pointing out that, “[h]owever imperfectly, the nation-state is the primary locus of political legitimacy and the pursuit of justice, and it is one of the advantages of domestic political theory that nation-states actually exist.”²⁵ Nagel deepens his argument with the claim that institutions other than the nation state – such as international economic institutions – do not trigger associative duties because all of the participants are not engaged in a collective activity that serves their mutual

19. See, e.g., UNFCCC, Ad Hoc Working Group on Long-Term Cooperative Action, *Ideas and Proposals on the Elements Contained in Paragraph 1 of the Bali Action Plan* 19, U.N. Doc. FCCC/AWGLCA/2009/MISC.1 (Mar. 13 2009) (China's Views on the Fulfillment of the Bali Action Plan and the Agreed Outcome To Be Adopted by the Conference of the Parties at Its 15th Session).

20. AUBREY MEYER, *CONTRACTION & CONVERGENCE: THE GLOBAL SOLUTION TO CLIMATE CHANGE* 55 (2001) (“[T]he world's atmosphere belongs equally to everyone if it belongs to anyone at all. . . .”).

21. See Starkey, *supra* note 1, at 5.

22. Manmohan Singh, Prime Minister of India, Speech on Release of Climate Change Action Plan (June 30, 2008), available at <http://www.pmindia.nic.in/lspeech.asp?id=690>.

23. See MARTHA C. NUSSBAUM, *FRONTIERS OF JUSTICE* 92-93 (2006) (arguing that the centrality of the nation state makes social contract theories inadequate for confronting contemporary problems of global justice).

24. Thomas Nagel, *The Problem of Global Justice*, 33 *PHIL. & PUB. AFF.* 113, 120-21 (2005) (discussing Rawls generally and citing RONALD DWORKIN, *SOVEREIGN VIRTUE* 6 (2000)).

25. *Id.* at 113.

advantage.²⁶

Following the arguments of an established and expanding community of global justice thinkers,²⁷ the emergence of an increasingly “globalized” economy and political framework counsels rejecting Nagel’s claim that there are necessarily greatly divergent moral standards for national and global economic justice. Because it is simply unacceptable to hold that persons who suffer from inequality have no claim on their fellow human beings, duties of justice must apply transnationally – particularly where people are denied the opportunity to help shape the institutions that affect them. This intuitive position allows for the possibility of institutional change, but as yet does not prescribe a particular way in which such duties apply. In the climate change context, the idea that duties of justice reach across national borders suggests that climate negotiators cannot fulfill all of their duties of justice by forming agreements that place as few demands as possible on the citizens they represent, and underscores the need for a different method of allocating emissions rights.

III. RETHINKING CONVENTIONAL VIEWS ON TRANSNATIONAL JUSTICE

A. In Favor of Institutional Cosmopolitanism

The question of what demands people are entitled to make on each other in response to climate change is a complicated one. It is clear that climate change harms people. But what is it about these harms that triggers duties on the part of those who emit high levels of greenhouse gases to ensure that others are not harmed by their activities? The argument that wealthy nations have caused climate change does not appear to provide sufficient grounds for assigning responsibilities. As Coleman and Ripstein point out, any appeal to causation or agency entails presuppositions about the entitlements of the parties involved.²⁸ Therefore, decisions about who should bear the cost of a particular misfortune require making substantive decisions about what constitutes “reasonable” behavior.²⁹ Such an analysis, familiar from the fault system in tort law, involves an account of “the liberty and security interests that are at stake, which in turn depends on the importance of the activity in which the defendant is engaged and the significance of the . . . interest that might be injured.”³⁰

In order to proceed with an account of responsibility for climate change, it is necessary to be able to compare coherently the high-emitting activities in which developed countries are engaged with the interests of

26. *Id.* at 138.

27. See, for example, the work of contributors to *GLOBAL ETHICS: SEMINAL ESSAYS* (Thomas Pogge & Keith Horton eds., 2008).

28. Coleman & Ripstein, *supra* note 3, at 107.

29. *Id.*

30. *Id.* at 91.

developing countries: “[o]nly when we know what each of us owes the other can we determine who owns the costs of misfortunes that arise in the course of our interactions.”³¹ The broad social importance of disproportionate emitting activities relative to the liberty and security interests of persons in developing countries helps define the permissibility of those activities, and in turn contributes to determining the appropriate degree of care.³² Already, repeated appeals to CBDR in the UNFCCC documents express at least some level of acknowledgment on the part of high-emitting countries that the current distribution is unjust.³³

In his influential work on human rights, Thomas Pogge argues that the current transnational character of markets and property rights places us in a global institutional order, involving such institutions as the territorial state, a system of international law and diplomacy, and a global economic system.³⁴ According to Pogge, common participation in a single global institutional order makes unfulfilled human rights everyone’s responsibility.³⁵ In developing this theory, which he calls “institutional cosmopolitanism,” Pogge borrows the concept of “associative” duties from Rawls, but finds that such duties exist in contexts other than national society. In the same way that citizens of a nation state are entitled to certain rights because the state claims authority over them, persons who are subject to the rules of the global institutional order have certain entitlements under that order.

Pogge suggests that wealthy nations behave unjustly where they cause foreseeable and avoidable harms that violate people’s “basic interests.” But can poverty- or climate change-induced harms really be attributed to the global institutional order? Mathias Risse, for example, finds it implausible that the global order is responsible for the fact that more deaths occur in a state of poverty than in an “ideal state of affairs.”³⁶ Instead, Risse points out that, for most of human history, “the overwhelming majority of people lived in utter misery.”³⁷ Rather than indicting transnational institutions for failing to do more for the world’s worst-off, he praises the “global governance”³⁸ of the last fifty years, which saw the advent of the U.N. and the Bretton Woods institutions.³⁹ This is, he says, “the first time . . . humankind has engaged in something resembling potentially all-inclusive collective problem-solving,” and the result is that “the human race has never been better off, and it has never been better armed with the technological prowess, medical knowledge, and intellectual tools to fight

31. *Id.* at 96.

32. *Id.* at 114.

33. See *supra* notes 6-10 and accompanying text.

34. POGGE, *supra* note 2, at 177.

35. *Id.*

36. Mathias Risse, *How Does the Global Order Harm the Poor?*, 33 PHIL. & PUB. AFF. 349, 369 (2005).

37. *Id.*

38. Risse defines “global governance” as the network of organizations that make up the global order Pogge describes. *Id.* at 350.

39. *Id.* at 370.

poverty.”⁴⁰ Recalling Coleman and Ripstein’s analysis, Risse would draw the line such that most poverty-related harms are allowed to lie where they fall.

In contrast to Pogge’s duty to reform the global institutional order such that foreseeable harms are avoided, Risse posits a limited “duty to assistance in institution building.”⁴¹ The main difference between these two approaches is that Risse recognizes only a minimal duty to help persons in other countries, while Pogge promotes a deeper duty to protect a reasonable set of basic interests for all people – even those who are not members of one’s own nation state. But even on Risse’s own terms, the governments of wealthy nations have spectacularly failed their “duty to assistance in institution building” by turning a blind eye to oppressive regimes in resource-rich countries – a trend that Pogge calls the “resource privilege.”⁴² According to the resource privilege, wealthy nations are willing to recognize corrupt governments in developing countries in order to obtain the resources required for sustaining existing levels of consumption, thus perpetuating bad governance situations and grossly unfair distribution of economic benefits to citizens of these countries. Corrupt governments in many countries have been able to enrich themselves while failing to eradicate poverty or improve economic growth.⁴³ Where the resources obtained are fossil fuels, the citizens of these countries are harmed even further through the overproduction of greenhouse gas emissions on the part of persons in wealthy nations.

B. Duties in the Context of Climate Change

In a world where most large-scale economic transactions reach across national borders, it is intuitively difficult to be satisfied with a duty that provides no real improvement for the people who are harmed by such transactions. On Coleman and Ripstein’s terms, the failure on the part of powerful nations to improve economic ground rules seems “unreasonable”⁴⁴ because it disproportionately privileges the interests of the most fortunate over those of the world’s worst-off. Certainly there is a long history of “economic ground rules”⁴⁵ that harm individuals in direct and deplorable ways. The international slave trade is an obvious example. Yet in the same way that the spread of democratic values eventually led previous generations to view slavery as an abhorrence, the emergence of truly global problems like climate change may now teach us to view as unjust the imposition of a coercive global institutional order on persons who lack a meaningful means of political participation for shaping that

40. *Id.*

41. Mathias Risse, *What We Owe to the Global Poor*, 9 J. ETHICS 81, 82 (2005).

42. POGGE, *supra* note 2, at 120.

43. *Id.*

44. *See supra* notes 28-29 and accompanying text.

45. POGGE, *supra* note 2, at 182.

order.

Before proceeding to an account of how climate change harms are expressive of existing injustices, it will be useful to provide a description of these harms and how they are geographically distributed. Research by the Intergovernmental Panel on Climate Change (IPCC) shows that temperature increases are already having adverse effects on natural and human systems.⁴⁶ The IPCC reports, further, that circumstances are expected to worsen dramatically by the end of this century.⁴⁷ Freshwater resources will change significantly as temperature changes exacerbate droughts in dry areas and flooding in others.⁴⁸ Crop productivity is expected to decrease at lower latitudes.⁴⁹ In Asia and Africa, coastal flooding is projected to be especially severe.⁵⁰ Poorer communities will be especially vulnerable to these changes not only because of their geographical location, but also because of their limited capacity for adaptation.⁵¹ These populations will see increases in malnutrition, with consequences for child growth and development; increased deaths, disease and injury due to heat waves, floods, storms, fires, and droughts; increased diarrheal disease; increased frequency of cardiorespiratory diseases due to higher concentrations of ground-level ozone; and altered distribution of vectors for infectious diseases.⁵²

In response to such changes, claims of environmental human rights have become more prevalent in the last few years. A December 2005 petition to the Inter-American Commission on Human Rights – submitted by Inuit leader and Nobel Peace Prize nominee Sheila Watt-Cloutier, the Center for International Environmental Law (CIEL), and Earthjustice – describes the effects of climate change on Inuit tribes as harms caused by disproportionate consumption of greenhouse gases by the United States. The petition claims that the United States is “obligated under international law to take responsibility for its contributions to global climate change both by limiting emissions and by paying reparations to those that it has harmed and continues to harm.”⁵³ In her testimony before the Commission, Watt-Cloutier explained that extreme weather events, loss of sea ice, and changing disease vectors are threatening the “rights to life, health, property and means of subsistence” for the Inuit and other geographically and economically vulnerable groups.⁵⁴

46. *Summary for Policymakers*, in CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 8 (M.L. Parry et al. eds, 2007) available at <http://www.ipcc.ch/ipccreports/ar4-wg2.htm> [hereinafter IPCC Summary].

47. *Id.* at 11.

48. *Id.*

49. *Id.*

50. *Id.* at 12.

51. *Id.*

52. *Id.*

53. Sheila Watt-Cloutier et al, Petition to the Inter American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States, 103 (Dec. 7, 2005), available at http://www.ciel.org/Publications/ICC_Petition_7Dec05.pdf [hereinafter Inuit Petition].

54. Sheila Watt-Cloutier, Testimony before the Inter-American Commission on Human

The Male' Declaration on the Human Dimension of Global Climate Change, signed in November 2007 by the Small Island Developing States, makes similar claims about environmentally-related human rights violations. The Male' Declaration emphasizes the disproportionate vulnerability of small island, low-lying coastal, and atoll states to the effects of climate change, and demonstrated concern that climate change "has clear and immediate implications for the full enjoyment of human rights including *inter alia* the right to life, the right to take part in cultural life, the right to use and enjoy property, the right to an adequate standard of living, the right to food, and the right to the highest attainable standard of physical and mental health. . . ." ⁵⁵

While neither the right to a clean environment nor the right to "take part in cultural life" has been clearly acknowledged by the international community, ⁵⁶ some scholars argue that the scope of generally accepted human rights must be expanded beyond conventionally recognized rights – most of which are rooted in a traditionally European conception of property – if we are to protect the subsistence and way of life of those who are most vulnerable to climate change. ⁵⁷ These examples serve to illustrate that the nature and magnitude of existing global problems, including climate change, necessitate a discussion about what kinds of duties these problems might create, and who is responsible for discharging those duties.

It is at least generally acknowledged that climate change-induced harms are taking place, and that they will continue to worsen. Pogge convincingly argues that global poverty can be traced to the structure of the existing global institutional order; climate change harms are, arguably, traceable to the same origin. Further, some have asserted that the harms resulting from climate change rise to the level of fundamental rights violations, calling in turn for international recognition of duties on the part of those who benefit from global institutions to (1) aid those who are being harmed and (2) strive to transform the status quo. The next Part begins to construct a framework for identifying the duties that arise as a result of climate change. A just remedy should transform the existing framework for allocating emissions rights, taking into account the related needs for political access and equitable consumption.

Rights (Mar. 1, 2007) (transcript available at http://www.earthjustice.org/library/legal_docs/testimony-before-iachr-on-global-warming-human-rights-by-sheila-watt-cloutier.pdf).

55. Male' Declaration on the Human Dimension of Global Climate Change, Nov. 14, 2007, available at http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf [hereinafter Male' Declaration].

56. See, e.g., Rania Rampersad, Note, *Indigenous Adaptation to Climate Change: Preserving Sustainable Relationships Through an Environmental Stewardship Claim & Trust Fund Remedy*, 21 GEO. INT'L ENVTL. L. REV. 591, 596-97 (2009).

57. See, e.g., Eric Dannenmaier, *Beyond Indigenous Property Rights: Exploring the Emergence of a Distinctive Connection Doctrine*, 86 WASH. U. L. REV. 53 (2008).

IV. THE QUESTION OF REDISTRIBUTION

Pogge's indictment of the existing global order is helpful to a discussion of climate change for two main reasons. First, the UNFCCC is a classic example of the international negotiation framework that Pogge criticizes for allowing wealthy states to exert a "crushing advantage in bargaining power. . . ."⁵⁸ Second, development level has been a major factor in assigning emissions reduction targets. This Part suggests that the compensation mechanism Pogge proposes for implementing institutional cosmopolitan principles is an inadequate expression of those principles, especially in the context of climate change.

A. Insufficiency of Compensatory Remedies: The Right to Political Participation

Having recognized a duty on the part of those who benefit from global institutions to transform these institutions such that "radical inequality" is eliminated, Pogge proposes an institutional mechanism for fulfillment of that duty called the Global Resources Dividend (GRD).⁵⁹ Under the GRD, users of natural resources would be required to pay a consumption tax whose revenues would be redistributed to those who are being harmed by the existing global order.

In Pogge's view, wealthy nations incur a duty to ensure that the "basic interests" of all individuals are promoted.⁶⁰ The set of interests he proposes is not limited to life-sustaining needs, such as nutrition, medical care, and sanitary conditions, but includes social and political rights: education, meaningful political participation, and a fair legal system.⁶¹ This emphasis on social relations suggests that Pogge is arguing for duties that are broadly egalitarian rather than limited to basic humanitarian concerns. Most importantly, Pogge posits a universal right to political participation: what he calls the "equal opportunity requirement."⁶² One could argue that the equal opportunity requirement has long been enshrined in international law. In 1986, the United Nations adopted the Declaration on the Right to Development, "recognizing that the creation of conditions favourable to the development of peoples and individuals is the primary

58. POGGE, *supra* note 2, at 27.

59. *Id.* at 202. See also *id.* at 202-20 (discussing how the GRD proposal presents viable alternative ways of organizing the global economic order).

60. *Id.* at 203.

61. *Id.*

62. *Id.* at 193. There is some concern with a discussion of "equal opportunity" for countries where the climate change duties in question apply to persons. For the purposes of this Note, however, it is expedient to assume that national governments will adequately advocate for the rights of their citizens. There are remaining ethical concerns where persons have either insufficient influence over their countries' role in shaping international policy or insufficient political influence domestically; however, a deeper discussion of these problems is beyond the scope of this Note.

responsibility of their States.”⁶³ Insofar as states are unfairly disadvantaged by the ground rules that govern the global institutional order, national governments are rendered unable to fulfill their legal responsibility to create those conditions necessary for development, which is acknowledged by the international community to be an “inalienable human right.”⁶⁴

These two threads – a duty of compensation on the one hand, and a right to political participation on the other – are somewhat incongruous. Pogge criticizes the existing international negotiation framework because it prevents many individuals from exercising their right to political participation in a meaningful way – thus violating the equal opportunity requirement. But the solution he proposes allows this very framework to remain largely intact. Compensation, by definition, provides a remedy for harmful or unjust behavior that has already occurred, and may be understood to sound more in corrective than distributive justice. Although subjected to new price pressures under the GRD in the form of a consumption tax, wealthy nations would likely retain much of their existing ability to consume disproportionate levels of natural resources. Even if the tax were high enough to effect a major wealth redistribution, as Pogge himself acknowledges, the GRD would confer “no right to participate in decisions about whether or how natural resources are to be used and so does not interfere with national control over resources, or eminent domain.”⁶⁵ If existing property rights create the problem of unjust distribution in the first place, a solution that leaves this scheme largely intact would allow for continued injustice even as it addresses economic inequalities.

Certainly Pogge treats the GRD as a “step” toward global justice, not a total solution.⁶⁶ Similarly, compensatory measures are likely to be a necessary component of any solution to climate change.⁶⁷ But forming a solution that relies wholly on compensating developing countries for economic inequalities that make it more difficult to cope with climate change, or for the costs of employing low-carbon technologies, accords too little weight to the right of all countries to participate in forming a global solution. Egalitarian demands do not simply apply to the pursuit of just

63. Declaration on the Right to Development, G.A. Res. 41/128, Annex, U.N. Doc. A/RES/41/128/Annex (Dec. 4, 1986).

64. *Id.* art. 1.

65. POGGE, *supra* note 2, at 203.

66. *Id.* at 210.

67. See, e.g., Poznan Climate Change Conference (COP-14), Dec. 1-12, 2008, *Ideas and Proposals on the Elements Contained in Paragraph 1 of the Bali Action Plan: Submissions from Parties: Addendum 26-27*, U.N. Doc. FCCC/AWGLCA/2008/MISC.5/Add.1 (Nov. 21, 2008) (“[T]o the extent that the incremental lifetime costs of investment in adaptation and mitigation are positive, they would have to be fully recompensed if economic and social development and poverty alleviation are not to suffer.”), available at <http://unfccc.int/resource/docs/2008/awglca4/eng/misc05a01.pdf>; see also Juliet Eilperin & David A. Fahrenthold, *Signs of Hope Emerge at Climate Change Conference: Overtures on Both Sides*, WASH. POST, Dec. 17, 2009; Evan Osnos, *Green Giant: Beijing’s Crash Program for Clean Energy*, NEW YORKER, Dec. 21 & 28, 2009, at 65; Natasha Loder, *Filthy Lucre Fouls the Air*, ECONOMIST, Dec. 12, 2009, at 66.

outcomes or allocations, but also require treating all participants with equal respect. In an important essay on equality, Elizabeth Anderson suggests one reason why redistribution of material resources alone may not be an adequate expression of egalitarian principles. Anderson structures her discussion as a critique of “luck egalitarianism”⁶⁸ – a theory of equality that calls for the nullification of natural imbalances in the distribution of advantage. The idea of equalizing luck is intuitively attractive in that it comes from an “apparently humanitarian impulse.”⁶⁹ This view of equality, however, potentially misses out on what Anderson argues is the most fundamental egalitarian goal – the expression of “equal respect and concern for all citizens.”⁷⁰ In a similar line of argument, Samuel Scheffler explains that equality is generally understood to be “a social and political ideal that governs the relations in which people stand to one another” – not a claim that “there is something that must be distributed or allocated equally. . . .”⁷¹ A relational conception of equality is particularly useful in the context of institutional cosmopolitanism, where the basic claim is that associative duties apply among people who participate in shared economic and political institutions. If international duties are indeed associative in the way that Pogge claims, it makes sense to ground redistribution in the structuring of social relations as they are expressed through international institutions.

Under the existing institutional framework, successful negotiations on behalf of wealthy countries result in more poverty-induced harms.⁷² In addition, the willingness of the governments of wealthy countries to recognize corrupt governments of resource-rich countries sustains oppressive regimes in the developing world. Harmful conditions in developing countries, then, are not attributable to national factors alone, but are sustained by the economic ground rules of the global order. The injustice of the global order is the perpetration of this harm on individuals who are unable to defend themselves – in Pogge’s words, “the imposition, by our governments in our name, of a coercive global order that perpetuates severe poverty for many who cannot resist this imposition.”⁷³

The GRD proposal focuses too much on ex post reforms on the part of those who possess both the greater means and the greater political influence. This imbalance is surprising given Pogge’s convincing case for expanded political participation. Institutional cosmopolitanism is attractive because it grounds rights and duties in a description of the existing global institutional order. A posited right to “equal opportunity for political participation” is similarly convincing because it is rooted in a vision of global institutions that affect the lives of individuals in a direct sense.⁷⁴

68. Elizabeth Anderson, *What Is the Point of Equality?*, 109 *ETHICS* 287, 289 (1999).

69. *Id.* at 290.

70. *Id.* at 295.

71. Samuel Scheffler, *What is Egalitarianism?*, 31 *PHIL. & PUB. AFF.* 31 (2003).

72. POGGE, *supra* note 2, at 27.

73. *Id.* at 30.

74. *Id.* at 191.

Depending on whether national governments are able to distribute funds effectively among their citizens, it is possible that a meaningful wealth-transfer mechanism would gradually increase the economic power and, in turn, the political influence of individuals in developing countries. But it is more likely that the kind of “moderate proposal”⁷⁵ that Pogge suggests would fail to result in extensive reform. Those who, unlike Pogge, endorse the existing international negotiating framework, are usually willing to acknowledge the existence of basic humanitarian duties even where they reject deeper duties of redistribution.⁷⁶ Limited wealth transfers may be acceptable to wealthy nations, which would be able to claim fulfillment of their redistributive duties while still retaining disproportionate economic power. Even a more committed egalitarian distribution of resources may be compatible with social hierarchy so long as a powerful actor retains control over their allocation.⁷⁷ Compensatory mechanisms like the GRD, if not coupled with mechanisms to ensure equal participation in shaping the global order, may leave intact existing hierarchies, thus failing their own equal opportunity requirement and missing the opportunity to shape “a social order in which persons stand in relations of equality” – what Anderson argues is the proper end of any egalitarian project.⁷⁸

The GRD proposal is an unquestionable improvement on the status quo in its expression of institutional duties: tying development aid to consumption at least conceptualizes existing inequalities as a function of a global order that is organized according to the interests of economically powerful states. Pogge repeatedly emphasizes the little that would be required to address “radical inequality,” apparently treating the minimal burden as grounds for the feasibility of his proposal. But if all who are affected by the global institutional order had truly meaningful access to the political process, it is difficult to believe that the policy solution emerging from this transformed global order would simply allow wealthy nations to continue consuming disproportionate amounts of natural resources. If developing nations were given their due in political influence under the equal opportunity requirement, the resulting policy change would most likely provide for a redistributive scheme that would not only reach beyond radical inequality, but would reduce or even eventually preempt the need for compensation.

B. Restricting Consumption

A compensation mechanism like the GRD fails a goal of equal treatment for all countries because it does not address problems of political

75. *Id.* at 210.

76. See *supra* Section II.A, discussing the difference between humanitarian duties and demands of justice.

77. Scheffler, *supra* note 71, at 36.

78. Anderson, *supra* note 68, at 313.

access. In addition, it fails to promote an equal policy outcome because it does not address the pressing need to reduce global consumption of fossil fuels. Reducing global emissions, moreover, risks producing further inequality unless the underlying distribution of entitlements that drives both economic and environmental inequality is transformed. Although the GRD provides redistribution needed for eradicating extreme poverty, it does not adequately address the overconsumption of natural resources by members of wealthy nations. Pogge treats the GRD's effect on consumption levels as an attractive co-benefit,⁷⁹ but is mostly concerned with the limited, albeit significant, project of ensuring that all individuals can meet their basic needs. Finding an egalitarian solution to climate change, however, requires directly addressing over-consumption.

It could be argued that the purpose of the GRD is to address global poverty – not to prevent climate change or to solve all major global problems. The GRD might be sufficient to address radical inequality, while other tools – perhaps similarly justified by institutional cosmopolitanism – could be used to mitigate climate change. It is problematic, however, to conceive of two separate redistributive mechanisms for addressing climate change and global poverty. Even if, as Nagel⁸⁰ and Risse⁸¹ argue, the global institutional order does not require implementing full cosmopolitan duties, the nature of climate change as a global problem gives rise to a set of duties that applies transnationally. It is non-controversial that all human beings have a right to meet their basic needs. Thus, insofar as persons in developing countries should not have to restrict their consumption, those in developed countries must incur a duty not to consume fossil fuels at levels that cause others to be harmed.

A systemic lack of political influence on the part of the world's worst-off provides grounds for a deep egalitarian critique of the global institutional order. At the same time, there may be some cases where important political principles require redistribution of resources, even without reaching the question of whether the decision about how to allocate them satisfies the equal opportunity requirement. Accordingly, Daniel Markovits suggests that Anderson and Scheffler's emphasis on relational equality may be overstated.⁸² Markovits is primarily focused on political solidarity within nation states, as promoted through the state's distribution of advantages in a way that is morally non-arbitrary. Yet some of his principles are applicable in the international context as well. Markovits argues that

[a] state that asserts the authority to sustain distributions that advantage some citizens and disadvantage others in morally

79. Offering four arguments for why the GRD proposal is compelling, Pogge lists changes in consumption last. POGGE, *supra* note 2, at 217-18.

80. See *supra* Part II.

81. See *supra* Section III.A.

82. See Daniel Markovits, *Luck Egalitarianism and Political Solidarity*, 9 THEORETICAL INQUIRIES L. 271 (2008).

arbitrary ways – that purports to obligate both the advantaged and the disadvantaged to support such distributions – implicitly treats the advantaged as more worthy than the disadvantaged, even though there are no morally respectable grounds for making this judgment.⁸³

A state's continued support for global institutional rules that advantage wealthy nations over poor ones is similarly morally arbitrary, and the unequal distribution effected by such rules may provide grounds for egalitarian redistribution in its own right.

The purpose of the GRD is wealth redistribution: individuals in wealthy nations would consume less – therefore producing fewer greenhouse gas emissions – while those in developing nations would acquire the means to develop and begin to consume more. The GRD provides for minimal convergence of consumption levels, but it does not provide for the contraction in global consumption needed to avoid unequally distributed harms.⁸⁴ For a redistributive mechanism to (1) address problems of economic inequality that currently plague climate change negotiations while (2) preventing the unequal effects of catastrophic climate change, it must not only give developing countries the means to develop such that poverty is eradicated, but it must also reduce total global emissions such that climate change-related harms are prevented. Global emissions reductions must be achieved both through the development and deployment of low-emission technologies – as financed by wealthy nations – and through restricting consumption on the part of those same countries.

V. EQUAL PER CAPITA ALLOCATION

Even if a GRD-like tax were increased to provide for more extensive redistribution of economic resources, as a compensatory mechanism it would fail to satisfy the basic principles of institutional cosmopolitanism. Participants in the global institutional order are entitled not simply to compensation for continuing exposure to an unjust distribution, but also to the political access rights necessary to help shape that order such that harms do not occur in the first place. Political access is especially important in the context of climate change, where limiting global emissions in an equitable manner requires making a decision as an international community. Further, even if cosmopolitan duties are left aside, the GRD does not adequately address the problem of global overconsumption. These criticisms suggest that what is needed to provide a just remedy for climate change is not a minimally redistributive mechanism such as the GRD, or even a more committed compensation scheme, but rather a tool

83. *Id.* at 285.

84. See MEYER, *supra* note 20 (discussing “contraction and convergence” of greenhouse gas emissions levels among nations).

that goes beyond remedial compensation to reduce consumption and related inequalities in the first instance.

Part I of this Note raised the concept of equal allocation of emissions rights (EPCA) as an alternative to the existing negotiation framework. It is not surprising that EPCA receives little attention in the context of international climate negotiations, since it represents an extreme departure from the existing treaty process. The rationale that is generally given for EPCA is simply that each human being has an equal right to the atmosphere.⁸⁵ This argument involves the same problem that arises in claims for a fundamental right to a clean environment: unless and until powerful governments recognize the right that is being claimed, it will carry little weight. The argument for an equal right to the atmosphere, moreover, is problematic in that there is no generally recognized equal right to any natural resource. Interestingly, however, EPCA not only satisfies the equal opportunity requirement, but also contains more potential than GRD-like mechanisms for restricting global emissions. EPCA is therefore potentially better able to satisfy the requirements of institutional cosmopolitanism.

Let us first consider the claim that EPCA is the best way to facilitate development in poorer countries, providing for egalitarian economic redistribution at the same time that overall global emissions are being reduced. Why, for example, does it make sense to focus on equalizing the right to emit greenhouse gas emissions when developing countries could simply develop using cleaner, less carbon-intensive technologies?⁸⁶ Employing clean technology will be an indispensable piece of any solution to climate change. From a practical perspective, however, it is highly unlikely that the technological infrastructure for clean energy production can be deployed in time to avoid the worst effects of climate change while both allowing wealthy countries to continue emitting at high levels and helping poor countries develop rapidly. As the IPCC reports, climate change is already producing adverse effects on human systems.⁸⁷ Further, from a fairness perspective, it is important to understand to whom cost savings from clean technology would accrue. Thus far, development using alternative technologies is far more expensive than development using fossil fuels. This is one reason why China and India are resistant to capping national emissions. As long as alternative technologies are expensive, using wind power, solar power, and sophisticated high-efficiency equipment in lieu of fossil fuels means, at least in the short term, slower economic growth.⁸⁸ The cost savings that attach to clean development, then, would

85. See, e.g., *id.*

86. See NICHOLAS STERN, STERN REVIEW: THE ECONOMICS OF CLIMATE CHANGE (2006) ("It will also be cheaper to pursue emission cuts in countries that are in the process of making big capital investments. . . . If they use low-emission technologies, emission savings can be 'locked in' for the lifetime of the asset."), available at http://www.hm-treasury.gov.uk/d/Chapter_10_Macroeconomic_Models_of_Costs.pdf.

87. See *supra* notes 46-52 and accompanying text.

88. See Osnos, *supra* note 67, at 65 ("As long as a Chinese citizen earns less than one-seventh what his counterpart in America earns, China is unlikely to back down on the

initially benefit wealthier nations by imposing upon them a lesser responsibility to reduce greenhouse gas-emitting consumption.

Even if wealth transfers were implemented to reallocate cost benefits to countries developing with clean technology, such a scheme in isolation would echo the GRD's failure of both the equal opportunity requirement and the need to change consumption patterns *ex ante*. Clean development is necessary to establishing long-lasting, climate-friendly infrastructure,⁸⁹ however, emphasizing technology to the exclusion of changing consumption patterns is an endorsement of the existing negotiation framework and the resulting unjust allocation.

EPCA satisfies the equal opportunity requirement in the sense that it prevents any nation or group of nations from making decisions about climate change mitigation while excluding from the decisionmaking process those who are affected by global climate change. Where national fossil fuel emissions are established under a set framework, EPCA eliminates the ability of any country to exercise "crushing advantage in bargaining power."⁹⁰ As current attitudes toward climate policy demonstrate, it is highly unlikely that any country with international political clout would use that power to implement EPCA. Further, EPCA emphasizes emissions reductions on the part of high emitters. To the extent that clean technology must be employed as poorer countries develop, wealthy countries should provide compensation; but they should also commit to phasing out high consumption patterns.

It may be true that EPCA would prevent poor nations from being excluded from the decisionmaking process, and that it would provide for global emissions reductions while also promoting economic growth in poorer nations. But why does rejecting a minimally redistributive mechanism like the GRD necessitate imposing full redistributive duties under EPCA? Is there not a lesser degree of redistribution that could satisfy both requirements? As Pogge argues, "[t]here are contexts . . . in which we act as a species and thus should decide together how to act."⁹¹ This is because, over the past few centuries, the development of more powerful technologies has increasingly imposed significant harms on persons beyond national borders, "thereby morally undermining – the conventional insistence on an absolute right to national self-

demand that it should be paid to slow down its economy and invest even more in energy technology.").

89. In fact, EPCA would create strong incentives to make advances in clean technology, since continued economic advantage will depend on achieving economic growth that does not rely on fossil fuels.

90. On the other hand, it could be argued that EPCA circumvents the equal opportunity requirement altogether by removing the necessity for democratic participation: because assigning an equal right to emit leaves no privileges left to be determined, EPCA in fact frustrates democratic values instead of promoting them. As I will show in Part V, however, democratic participation can take place in the realm of enforcement rather than in the initial allocation of emissions rights.

91. POGGE, *supra* note 2, at 192.

determination."⁹² In these cases – one of the most dramatic of which is climate change – using the existing negotiating framework to identify solutions is impermissible because it excludes from the conversation those who are significantly affected while allowing others to benefit disproportionately.

If repeated negotiations are impermissible, it follows that there must be a fixed solution that best approximates the interests of all. Anything less than equal per capita allocation would amount to freezing the results of one last exercise of bargaining power on behalf of those nations that are currently able to exercise that power. Participants in the global institutional order have associative rights and duties. Where the less well-off are given true political access, such that they are able to help shape the global institutions that affect them, it is difficult to believe that they would approve a state of affairs that leaves them less able to benefit from fossil fuel technologies than countries that developed earlier. Indeed, this evaluation is at the heart of China's emphasis on a basic right to development.⁹³

EPCA would allow for global reductions sufficient to avoid the harmful effects of climate change while simultaneously shielding those who are less well off from unfair burdens of mitigation. Further, it would satisfy the equal opportunity requirement by eliminating the existing international negotiation framework, and would necessitate changes in global consumption patterns that cease to give unfair advantages to the wealthy. It therefore offers a solution for climate change harms while addressing many of the economic inequality problems that currently plague the climate treaty process.

VI. PROPOSALS FOR INSTITUTIONAL CHANGE

This Part makes three suggestions regarding the kind of institutional change needed to implement a just climate policy. First, wealthy countries have continued to increase consumption levels in spite of their Kyoto targets by exporting emissions-intensive production to developing countries. Thus, in order to ensure a meaningful redistribution of emissions rights, a country's total emissions should be calculated with respect to consumption rather than production. Second, linking enforcement to international trade privileges would address equity concerns by helping to rebalance power on the international stage. Finally, in order to avoid a remedial regime under which wealthy nations are simply able to buy a continued, unequal right to emit greenhouse gases, an EPCA compliance

92. *Id.*

93. *See, e.g.,* United Nations Framework Convention on Climate Change, Poznan, Pol. (COP-14), Dec. 1-12 2008, *Ideas and Proposals on the Elements Contained in Paragraph 1 of the Bali Action Plan: Submissions from Parties* at 19, FCCC/AWGLCA/2009/Misc.1 (Mar. 13, 2009) ("The right to development of developing countries should be adequately and effectively respected and ensured in the process of global common efforts in fighting against climate change.").

regime should depend on sanctions rather than on compensation alone.

A. Equitably Calculating Equal Allocation

Having established that the right to emit greenhouse gases should be equalized across national borders, it is important to understand which activities will contribute to the calculation of a country's emissions. In other words, how is an equal right to emit greenhouse gases to be expressed through a practical accounting scheme? Fair implementation of EPCA requires restructuring the existing accounting scheme for measuring a country's greenhouse gas emissions. In recent years, Chinese politicians have objected to criticism leveled at China for its high greenhouse gas emissions on the grounds that a large portion of China's emissions-intensive production occurs in response to market demand on the part of wealthy nations.⁹⁴ A 2008 study identified China as a "net exporter" of greenhouse gas emissions, with nineteen percent of its production emissions coming from exported goods in 2002, and expected to reach thirty percent by 2006.⁹⁵

The practical effect of "exporting" emissions is that importing countries are able to claim greater emissions reductions while still engaging in high consumption, a process that has been called "abatement through trade."⁹⁶ Countries with high consumption levels are, in this sense, receiving unfair credit for emissions reductions under Kyoto. At the same time, China's gross domestic product (and that of other high-export countries) is growing at a much slower rate than China's production emissions output.⁹⁷ Regardless of the distribution mechanism that is adopted, fair allocation of responsibility for climate change abatement requires calculating a country's emissions based on the goods it consumes rather than those it produces.

A logical objection to using consumption as the basis for assigning responsibility for climate change is that it is not clear whether focusing on consumption actually solves the problem of just allocation. It seems fair to require the world's wealthiest peoples to pay for the negative effects of their "overconsumption." But what about the role these "exported" emissions have in developing the Chinese economy? In what sense would it be better for China's workers if these production activities did not exist at all?

94. See Jiahua Pan, Jonathan Phillips & Ying Chen, *China's Balance of Emissions Embodied in Trade: Approaches to Measurement and Allocating International Responsibility*, 24 OXFORD REV. ECON. POL'Y 354, 355 n.2 (2008) (stating that the issue of consumption emissions was "first raised on 4 June 2007 by Ma Kai, Director of the National Development and Reform Commission, at a press conference on China's National Programme on Climate Change," and was "reiterated at the Bali conference by his deputy, Xie Zhenhua, the head of the Chinese delegation to [COP13]").

95. *Id.* at 364, 366.

96. *Id.* at 370.

97. *Id.* at 367.

Although the Chinese economy is benefiting from foreign demand for cheap imports, it seems incongruous to suggest that China should take abatement responsibility for greenhouse gas emissions produced by industries whose workers are some of the worst-compensated in the world.⁹⁸ China may be benefiting in an absolute sense from the business opportunities embodied in exported emissions. However, not only are wealthy countries benefiting politically from claiming emissions reductions and economically from purchasing cheaper goods, but also China's consumption levels are growing much slower than the rate of its production emissions. This characteristic of the Chinese economy suggests that proportionally much of the economic benefit from China's greenhouse gas-intensive production does not accrue to China in the form of economic development, but rather to countries that are importing Chinese goods.

Implementing EPCA without switching to a consumption-based accounting system would retain many of the equity problems of the current system as long as countries like China continue to run a "balance of emissions embodied in trade" (BEET), where emissions from production of goods they consume are less than the emissions from domestic production.⁹⁹ An EPCA regime based on production emissions would allow for redistribution; but, as in the current accounting scheme, importing countries would reap a significant portion of the benefit. As discussed above, persons in developing countries have a right not to be harmed by climate change, and this right entails having a say in shaping the institutions that structure allocation of emissions rights. Basing accounting on production emissions frustrates the ability of export nations to control their own responsibilities by allowing consumers in import countries to drive the responsibilities of countries in which production takes place. To the extent that it is skewed by the demand of wealthy consumers, redistribution is no longer truly egalitarian.

B. Climate-Trade Linkage

Where the character of transnational economic interactions forms the basis for global accounting, it makes sense to attach emissions target compliance to trade rules on the enforcement side as well. In *International Trade and Labor Standards*, Christian Barry and Sanjay Reddy argue that an effective way to improve labor standards internationally would be to create a "linkage" mechanism according to which countries that improve labor standards would be granted greater access to international markets.¹⁰⁰ On a commonsensical level, labor standards should attach to international trade

98. See Press Release, Bureau of Labor Statistics, International Comparisons of Hourly Compensation Costs in Manufacturing, 2007 (Mar. 26, 2009), available at <http://www.bls.gov/news.release/pdf/ichcc.pdf>.

99. *Id.* at 356.

100. CHRISTIAN BARRY & SANJAY G. REDDY, *INTERNATIONAL TRADE AND LABOR STANDARDS* (2008).

rules because import countries can be understood to possess some level of responsibility for the working conditions of the people who produce the goods that they choose to consume. Recalling the discussion of institutional cosmopolitanism in Part II, consumers have a distributive duty to ensure that international trade rules facilitate the implementation of better labor standards in countries from which they buy goods – particularly where those consumers benefit from cheaper prices.

Similar reasoning can lead to a conclusion that it makes sense to link emissions target compliance to international trade rules: as suggested in Part V.A, import countries can be understood to hold responsibility for the emissions involved in producing the foreign goods they consume. Barry and Reddy address a number of objections to linkage in the labor standards context.¹⁰¹ Interestingly, re-applying the linkage concept in the realm of emissions target compliance appears to avoid the most trenchant of these objections.

A common objection to linkage is that it will hurt the people it is meant to help by giving developing countries less access to international markets, and depressing employment rates in these countries by increasing the cost of labor.¹⁰² In the climate context, however, developing countries would be allowed to continue increasing their greenhouse gas emissions, while the countries that would potentially be exposed to penalties for failing to meet their emissions reduction targets under a linkage regime would be those countries with the best means to survive those penalties. In addition, opponents to linkage argue that it is politically imperialistic because it unfairly imposes a specific moral vision on other cultural spheres.¹⁰³ Under this view, states should be able to choose their own institutions; further, while poor labor practices are regrettable, they are a necessary byproduct of rapid development, which will ultimately benefit the world's disadvantaged. Climate change avoids this objection altogether. Under the linkage regime that Barry and Reddy propose, wealthy countries would allow increased trade concessions to developing countries where they comply with labor standards imposed by the very politically powerful countries providing the concessions.¹⁰⁴ Climate change linkage, in contrast, would likely result in curtailed market access for already-powerful countries. Because such a scheme would result in a more equitable balance of economic and political power among nations, it is able to avoid the charge of being potentially imperialistic.

Barry and Reddy point out that a morally legitimate program for institutional reform must do more than “serve morally valuable objectives”; in addition, “the costs of implementing the reform must also be distributed fairly.”¹⁰⁵ EPCA is a morally valuable objective in that it satisfies

101. See *id.* ch. 6 (“A Constructive Procedure – Identifying Linkage Proposals That Meet the Standard Objections”).

102. *Id.* at 12.

103. *Id.* at 19.

104. *Id.* at 28-29 (outlining the features of a feasible and desirable linkage regime).

105. *Id.* at 25.

the distributive principles of institutional cosmopolitanism. Further, using linkage to achieve EPCA allows the costs to be distributed fairly in a way that linkage in other policy contexts may not.

C. Using Import Restrictions and Sanctions to Enforce EPCA

When considering what tools an international body should use to bring about compliance with environmental standards under a linkage regime, it should first be noted that the ability of countries to meet multilateral environmental commitments may be limited under existing WTO law. In *Global Warming and the World Trading System*, the Peterson Institute for International Economics (PIIE) has addressed in detail the ways in which domestic measures to address climate change or multilateral environmental agreements might come into conflict with the WTO and the General Agreement on Tariffs and Trade (GATT).¹⁰⁶ In response to such concerns, Daniel Esty has suggested that the WTO could adopt a provision – similar to one included in the North American Free Trade Agreement (NAFTA) – stating that trade measures taken in accordance with environmental agreements do not violate the GATT.¹⁰⁷

Assuming that trade law could be revised to better accommodate environmental measures, there are a number of enforcement options to consider: “cessation and non-repetition,” where the offending party simply agrees voluntarily not to repeat the violation; compensation, which Sungjoon Cho has identified as “the most liberal form of remedies”; restitution; and sanctions, the “remedy of last resort” under the Dispute Settlement Understanding – the set of rules that governs the resolution of trade disputes under the World Trade Organization (WTO).¹⁰⁸ Of the various policy instruments available for enforcing international law against individual nation states, the tool that makes the most sense for ensuring EPCA-compliance is the ability to impose sanctions on countries that fail to comply with their emissions targets.

Cessation and non-repetition is obviously a problematic mode of effecting compliance, since it involves no enforcement power and it is often difficult to tell whether the offending party has really remedied the situation or has merely “window-dressed the measure while keeping the violative measure alive.”¹⁰⁹ The Kyoto regime has shown that, in the climate change context, cessation and non-repetition provides no meaningful recourse for persons harmed by a country’s failure to meet its emissions

106. GARY CLYDE HUFBAUER, STEVE CHARNOVITZ, & JISUN KIM, PETERSON INSTITUTE OF INTERNATIONAL ECONOMICS, *GLOBAL WARMING AND THE WORLD TRADING SYSTEM* 31-64 (2009).

107. Daniel C. Esty, *Economic Integration and Environmental Protection*, in *THE GLOBAL ENVIRONMENT: INSTITUTIONS, LAW, AND POLICY* 155, 167 (Regina S. Axelrod, Stacey D. VanDeveer & David Leonard Downie eds., 3d ed. 2010).

108. Sungjoon Cho, *The Nature of Remedies in International Trade Law*, 65 U. PITT. L. REV. 763, 771-81 (2004).

109. *Id.* at 772.

targets. Under the Dispute Settlement Understanding, sanctions are imposed only if a WTO Member fails to provide satisfactory compensation to a complaining party for its violation of WTO rules.¹¹⁰ In the context of a climate linkage regime, however, compensation and restitution are problematic. Where a country may fulfill its duty simply by transferring money to the harmed party, it effectively pays to maintain an unjust status quo without being required to fulfill the deeper distributive duties implicated in EPCA. In other words, a remedial program that relies on compensation runs the risk of incentivizing efficient breach: wealthy countries simply pay to continue polluting at disproportionate levels, thus violating both the equal opportunity requirement and their duty to reduce consumption.

Indeed, this threat has been widely emphasized by groups that object to international carbon markets. Most notably, both indigenous groups and the Brazilian government have vehemently objected to the creation of a market for reduction of emissions from deforestation and degradation (REDD), which would allow wealthy countries to pay forested nations to avoid cutting down threatened forests. Developed countries have touted REDD as an equity-promoting tool that would result in wealth transfers to developing countries at the same time that it would provide cost-savings for developed countries as they strive to reduce emissions. However, “[t]here is widespread suspicion that industrialised countries want to use REDD to let their own polluting industries buy their way out of responsibility for climate change.”¹¹¹ Arguments in favor of increased use of compensation in the realm of international law¹¹² fail to take into account the importance of ensuring that developing countries not only receive financial benefits, but also have a meaningful say in shaping international policy.

This analysis of remedies leads to the WTO’s “remedy of last resort,” sanctions, which arguably should be more liberally used where trade access is attached to compliance with an emissions reduction scheme. Barry and Reddy argue that, in the labor context, linkage need not involve sanctions, but can instead be achieved through offering trade advantages.¹¹³ This is not true in the climate context, however. Where wealthy countries offer trade concessions to developing countries for improving labor standards, they effectively compensate poor countries for the increased costs that go along with imposing more stringent standards. In contrast, where the countries whose behavior must be policed are wealthy countries with high access to international markets, the tool used to ensure compliance with international law must curtail these already broad

110. Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Annex 2, Apr. 15, 1994, 1867 U.N.T.S. 354-55 (1994).

111. *The Pressure for REDD*, 79 DOWN TO EARTH (2008), available at <http://dte.gn.apc.org/79are.htm>.

112. See, e.g., William J. Davey, *Compliance Problems in WTO Dispute Settlement*, 42 CORNELL INT’L L.J. 119 (2009).

113. BARRY & REDDY, *supra* note 100, at 5.

privileges.

The demonstrated unwillingness of developed countries to adopt sufficiently stringent emissions caps shows that it would be infeasible to implement EPCA through incentives only. Incentivizing compliance through trade concessions would allow developed countries to retain much of the discretion they have under the current climate treaty to decide to what extent to comply with emissions caps. Trade incentive-based EPCA would provide nominal improvement on the status quo, since its rules would at least express egalitarian principles. But they would be unlikely to effect a just distribution, and might even contain the potential for decreased action: where wealthy nations no longer have to engage in a bargaining process, they may have little impetus to engage in serious thinking about how emissions reductions could be achieved. In Part V.A, I argued that production-based accounting leaves wealthy countries with a disproportionate ability to shape the mitigation responsibilities of other countries. Similarly, incentive-based linkage would frustrate the twin goals of reducing consumption and shifting the power balance such that institutional rules succeed in protecting the less well-off.

Compensation-based remedies do not constitute a full solution to climate change because they fail to transform the underlying allocation of entitlements. In addition, it is infeasible to ensure compliance with EPCA by offering trade concessions to countries that comply with emissions targets, since under EPCA the countries with the most stringent caps already have significant market access. Thus, appropriate acknowledgement of the interests of those who are threatened by climate change requires using restrictive measures to enforce EPCA.

In the environment context, there is some potential for imposing restrictive measures that fall short of sanctions. Border tax adjustments or import bans could be applied to goods that were produced using carbon-intensive processes.¹¹⁴ Such measures have the potential to shift consumption patterns toward less carbon-intensive goods,¹¹⁵ and could be effective as a transitional policy. However, because they target production processes, they would be less useful under a consumption-based accounting scheme. The most powerful, albeit controversial, tool for ensuring compliance with an environment-trade linkage regime is economic sanctions. A major advantage of sanctions is that they need not attach to products that are harmful in a particular way, but can instead target “innocent” products in an effort to change a country’s environmental practices.¹¹⁶ In the environmental arena, sanctions have been successfully used to curb whaling in Iceland, end Japanese drift-net fishing,

114. See DANIEL C. ESTY, *GREENING THE GATT: TRADE, ENVIRONMENT, AND THE FUTURE* 250 (1994) (discussing import bans based on production process, such as the U.S. ban on Mexican tuna caught with dolphin-killing nets).

115. HUFBAUER, CHARNOVITZ & KIM, *supra* note 106, at 65 (discussing the “polluter haven” problem).

116. ESTY, *supra* note 107, at 249.

and protect sea turtles in the Gulf of Mexico.¹¹⁷ The PIIE authors note that, in the climate change context, there has never been a “serious suggestion that other countries could have legally imposed trade sanctions against the United States,” despite its being a “prominent slowpoke on the climate issue over the past 10 years.”¹¹⁸ Given the need to pursue the several important goals of reducing economic inequality while promoting equal opportunity and reducing overconsumption, the potential for using sanctions to enforce a just emissions allocation scheme merits greater attention. Because existing international treaty authorization for environment-related trade sanctions is not clear,¹¹⁹ an important step toward establishing meaningful enforcement tools would be to amend the GATT to include a presumption against abrogation of environmental agreements.¹²⁰

VII. CONCLUSION

In benefiting from the ground rules that shape the existing global institutional order, politically and economically powerful nations incur a duty of redistribution toward persons who are being harmed by the disproportionate over-consumption of fossil fuels. In order to fulfill this duty, the international community should adopt a climate regime that both provides for equal per capita allocation of emissions rights, and is supported by enforcement mechanisms that rebalance access to international markets and ensure equal political participation in shaping global institutions.

Policymakers have so far refused to take seriously the idea of EPCA. But as long as institutional cosmopolitan duties remain under-expressed in international climate agreements, there will remain a significant and understandable risk of non-cooperation on the part of developing countries whose rights will, in turn, be under-protected. The pressing importance of finding a solution to climate change that both meaningfully includes all countries in the decisionmaking process and reallocates consumption rights fairly suggests that policymakers ought to consider EPCA more seriously.

117. *Id.* at 249-50.

118. HUFBAUER, CHARNOVITZ & KIM, *supra* note 106, at 70.

119. *Id.* at 71.

120. *See Esty, supra* note 107 and accompanying text.