

**The challenge of securing sustainability and equity  
in earth system governance**

Paper to be presented at the 2009 Amsterdam Conference  
on the Human Dimensions of Global Environmental Change  
2-4 December 2009

Stream: Theoretical and Methodological Foundations

HAYLEY STEVENSON  
Postdoctoral Fellow  
Political Science Program  
Research School of Social Sciences  
The Australian National University  
Canberra ACT 0200  
AUSTRALIA

Email: [hayley.stevenson@anu.edu.au](mailto:hayley.stevenson@anu.edu.au)

Abstract: This paper addresses an important challenge for future earth system governance: how to ensure that governance norms that emerge from inter-state negotiations foster equity and sustainability at all levels from the local to the global. I look back on two decades of global climate change governance to clarify how norms can structure access to global public goods and the allocation of responsibility for mitigating environmental degradation. Early normative debates on global climate governance offered cause for optimism among those concerned about equity and sustainability. But over time climate governance has evolved in such a way that threatens to exacerbate existing inequalities both within and between states. I therefore argue that global civil society has an important role to play both in promoting particular governance norms and monitoring their evolution. The appropriate definition of these norms ought to emerge from critical and inclusive public deliberation. In this paper I argue that two cross-cutting norms are best suited to securing sustainability and equity in future earth system governance. The first is common but differentiated responsibilities between and within states, which would help to secure equitable access to global public goods such as the atmosphere. The second norm emerges from the work of Val Plumwood and other green political theorists, and can be termed ‘remoteness reduction’. Whereas transnational mitigation allows a disassociation between the human practices that produce pollution and the necessary efforts to mitigate this pollution, a norm of ‘remoteness reduction’ would reinforce the connections between decisions and their consequences and thus ensure that responsibility is appropriately allocated.

## Introduction

In recent years, an unprecedented level of attention has been focused on regulating interactions between humans and natural systems, with the intention of maintaining the survival of the former and/or the productivity of the latter. A plethora of multilateral environmental agreements, as well as private and public-private arrangements now govern our interactions with the land, oceans and wetlands, forests, the atmosphere, and other related ecosystems. Together, these arrangements can be understood as ‘earth system governance’, which is defined by Biermann and colleagues as:

... the interrelated and increasingly integrated system of formal and informal rules, rule-making systems, and actor-networks at all levels of human society (from local to global) that are set up to steer societies towards preventing, mitigating, and adapting to global and local environmental change and, in particular, earth system transformation, within the normative context of sustainable development.<sup>1</sup>

These arrangements generally embody a set of norms (defined as collective expectations of behaviour) that define how access to natural systems and resources should be structured, and how responsibility for their degradation should be allocated. In this paper I address an important challenge for future earth system governance, that is, how to ensure that governance norms foster both long-term sustainability and equity as they diffuse from the global level to national and local levels. I aim to clarify the scope and magnitude of this challenge by looking back on two decades of global climate change governance.

Early international negotiations on the issue of climate change generated two norms concerning *who* should take responsibility for mitigating the problem and *how* such mitigation should be pursued. The first norm stipulated that governance should be guided by the principle of common but differentiated responsibilities (CBDR), while the second stipulated that mitigation should be pursued via domestic emission reduction targets and timetables. These norms initially offered cause for optimism among those concerned about equity and sustainability. However, norms are inherently fluid and over time global climate governance has evolved in such a way that threatens to exacerbate unsustainable development, as well existing inequalities within and between states. The early focus on the historical emissions of developed countries and their domestic mitigation efforts has

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<sup>1</sup> Frank Biermann, Michele M. Betsill, Joyeeta Gupta, Norichika Kanie, Louis Lebel, Diana Liverman, Heike Schroeder, and Bernd Siebenhüner. 2008. *Science and Implementation Plan of the Earth System Governance Project*. p.4. [http://www.earthsystemgovernance.org/publications/2009/Earth-System-Governance\\_Science-Plan.pdf](http://www.earthsystemgovernance.org/publications/2009/Earth-System-Governance_Science-Plan.pdf).

gradually given way to a concern with the future emissions of developing countries and transnational mitigation efforts. Major developing countries have largely responded to this normative shift by ‘hiding behind the poor’ within their own borders and thereby denying an extension of the CBDR norm to the domestic level. The effect of this shift in climate governance has been to undermine access to ‘environmental space’ for the world’s most vulnerable people, while absolving the world’s more privileged people of their responsibility for mitigating climate change.

By observing the experience of global climate governance through the lenses of constructivist IR theory and green political theory, I offer three lessons for future earth system governance. The first is based on constructivist insights into the process by which norms evolve and diffuse throughout the international system. This lesson centres on the way in which state actors align themselves with international expectations without effecting any fundamental shifts in existing systems, policies, and practices. The second and related lesson concerns the necessary role of civil society in promoting and monitoring particular norms at both the national and international levels. The third lesson focuses on two cross-cutting norms that I argue are ideal for securing sustainability and equity within earth system governance.

### **Global Norms of Climate Governance**

The late 1980s saw the issue of climate change evolve from a purely scientific concern to a political concern. This transition was enabled by a complex web of actors (scientific activists, international organizations, and environmentally-conscious political elites), events (the Villach Conference on greenhouse gases, the Villach and Bellagio policy workshops, and the adoption of the Vienna Convention for ozone protection), and other phenomena (prolonged droughts in North America, and a heightened public awareness of ozone depletion, deforestation, and transnational pollution). Together these factors generated an interest within the international community for governing climate change. The concept of ‘governance’ is widely used across many disciplines to capture important shifts in the way rules are set and enforced within a given polity.<sup>2</sup> Domestically, recent decades have seen the emergence of flexible styles of setting and enforcing rules, in which the authority of the state has partially devolved to a range of other public and private actors. At the global level, states remain the most pivotal actors but their authority on many issues is increasingly shared with

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<sup>2</sup> For a comprehensive overview of how this concept is used in the social sciences, see Mark Bevir. 2009. *Governance*. Sage Publications: London.

intergovernmental bodies and private market actors. The term ‘governance’ refers to the processes that coordinate the behaviour of these actors to achieve collectively agreed outcomes. I use the term ‘global climate governance’ here to refer to the mechanisms and institutions that coordinate state and non-state activities for mitigating and adapting to global climate change. While such coordination involves an increasing number of public, private, and hybrid actors,<sup>3</sup> the most important source of international coordination for climate change remains the United Nations Framework Convention on Climate Change. This institution comprises a set of principles, objectives, and commitments, and a comprehensive procedural architecture designed to protect the climate system for present and future generations.<sup>4</sup> Since the UNFCCC was established in 1994, global climate governance has evolved as states have extended and enacted its directives, and interpreted and re-interpreted the boundaries of appropriate conduct. This evolution can be scrutinized by focusing on two norms that have emerged from debates about *who* should take responsibility for mitigating climate change, and *how* such mitigation should be pursued.

The first governance norm stipulated that international efforts to reduce GHG emissions should be based on universal participation but guided by the principle of common but differentiated responsibilities and respective capabilities (hereinafter referred to as CBDR). This differentiated interpretation of universal participation was central to early climate change negotiations and was institutionalised in Article 3 of the United Nations Framework Convention on Climate Change (UNFCCC). Nevertheless, the representation of climate change as a global problem rendered the idea of universal participation susceptible to reinterpretation. Indeed, within months of the climate change convention entering into force in March 1994, the meaning of CBDR began to be challenged. Germany and the United States, for example, advocated further differentiation among the developing countries to limit GHG emissions in the ‘more advanced developing countries’. Both countries justified this position on the grounds that stabilising GHG concentrations in the atmosphere at a safe level would only be possible if future emissions in both the developed *and* developing countries were limited.<sup>5</sup> Many major developing countries have consistently responded to this demand

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<sup>3</sup> The most recent and wide-ranging discussion of these multiple sites of governance can be found in Phillip Pattberg and Johannes Stripple. 2008. Beyond the public and private divide: remapping transnational climate governance in the 21st century. *International Environmental Agreements*, 8: 367-388.

<sup>4</sup> United Nations Framework Convention on Climate Change. 1992. <http://unfccc.int/resource/docs/convkp/conveng.pdf>.

<sup>5</sup> German Federal Ministry for the Environment, ‘Elements for a Comprehensive Protocol to the FCCC’. 1994. A/AC.237/L.23/Add.1, p.3. <http://www.ccsr.u-tokyo.ac.jp/unfccc1/pdfs/unfccc.int/resource/docs/a/123add1.pdf>;

in two ways. First, by pointing to the widespread poverty that remains in their countries; so long as such poverty remains, it is argued, its eradication will be the overriding priority for developing countries. And second by pointing to the tiny per capita emissions of developed countries relative to developed countries. But as critics such as Greenpeace India have shown, these arguments obscure the unsustainable consumption patterns that do actually exist within minority elite populations in developing countries.<sup>6</sup> In 2007, Greenpeace India measured the 'carbon footprints' of India's middle and wealthy classes and found that their per capita emissions were only slightly smaller than the global average of five tonnes of CO<sub>2</sub>, but larger than the globally sustainable average of 2.5 tonnes.<sup>7</sup> However, the poverty experienced by approximately 823 million Indians serves to keep the national per capita emissions level at just two tonnes of carbon dioxide equivalent per year.<sup>8</sup> The message is that India and other developed countries should not 'hide behind the poor' - just as the North must reduce its emissions to create 'space' for development in the South, wealthy consumers in India must limit their emissions to create 'space' for improving the wellbeing of the nation's majority.<sup>9</sup> As I explain further in the following sections of this paper, the appropriate interpretation and application of CBDR needs to be carefully considered to avoid exacerbating inequalities. If the norm of CBDR is understood as either differentiating the North and the South only, or as requiring differentiation among developing countries to address future emissions there is a risk of exacerbating inequalities between and/or within countries.

Despite persistent contestation about its appropriate interpretation, the norm of CBDR was re-institutionalised in the Kyoto Protocol in 1997 and has been repeatedly re-affirmed in numerous forums. The continuing strength and legitimacy of this norm is illustrated by its inclusion in the 2007 Bali Action Plan, which set out a two-year negotiating process to ensure the full, effective, and sustained implementation of the Climate Change Convention now, up to, and beyond 2012.<sup>10</sup>

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UN. 1995. 'Matters relating to commitments: Review of the Adequacy of Article 4 Paras 2(A) and (B)'. FCCC/CP/1995/Misc.1, p.183. <http://unfccc.int/resource/docs/cop1/misc01.pdf>.

<sup>6</sup> G. Ananthapadmanabhan, K. Srinivas and Vinuta Gopal, 'Hiding Behind the Poor'. 2007. Greenpeace India, October, p.2. <http://www.greenpeace.org/raw/content/india/press/reports/hiding-behind-the-poor.pdf>.

<sup>7</sup> This figure is based on the level at which the increase in global temperature can be expected to remain below two degrees Celsius. Ananthapadmanabhan, *et al*, 'Hiding Behind the Poor', p.2.

<sup>8</sup> *Ibid*.

<sup>9</sup> *Ibid*, p.2.

<sup>10</sup> UN. 1997. 'Kyoto Protocol to the United Nations Framework Convention on Climate Change', p.9.

<http://unfccc.int/resource/docs/convkp/kpeng.pdf>; UN. 2007. 'Report of the Conference of the Parties on its

Global climate governance is also oriented by a norm defining *how* mitigation should be pursued. The idea that mitigation should be pursued through domestic emission reduction targets attracted widespread legitimacy in the late 1980s and early 1990s. Perhaps as a consequence of its institutionalisation in two existing international atmospheric agreements (the Montreal Protocol and the European Community's Large Combustion Plant Directive), this norm was reflected in numerous declarations and policies in the lead up to the creation of the UNFCCC in 1992.<sup>11</sup> An international conference convened by the Canadian Government in 1988, in Toronto, called for a reduction in global CO<sub>2</sub> emissions of twenty percent by the year 2005. While this conference was not an official inter-governmental meeting, the expression of this target as an appropriate way of responding to the threat of climate change certainly bolstered the emerging norm of domestic emission reduction targets. Illustrative is the fact that the 'Toronto Target', or a similar version, was subsequently adopted by a number of states, including Denmark, Norway, the Netherlands, Japan, Australia, and EU member states.<sup>12</sup> Nevertheless, the appropriate interpretation of this norm shifted throughout the 1990s as global environmental governance more broadly came to be dominated by a discourse of 'liberal environmentalism'.<sup>13</sup> As Bernstein explains, the 'compromise of liberal environmentalism' mitigates the economic disruptions that environmental protection may cause by absorbing environmental concerns into the liberal economic order itself; environmental protection has thus become seemingly dependent on securing continued economic growth and accumulation.<sup>14</sup>

The growing salience of liberal environmentalism had a significant impact on understandings of how climate change mitigation should be pursued by the international community; while many states continued to promote domestic emission reduction targets as the most appropriate means of mitigation, this norm assumed a more liberal and transnational character throughout the 1990s. Due to intense pressure from the United States, the UNFCCC featured only *qualitative* commitments for Annex I (industrialised) countries;

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thirteenth session, held in Bali from 3 to 15 December 2007', FCCC/CP/2007/6, p.14.  
<http://unfccc.int/resource/docs/2007/cop13/eng/06.pdf>.

<sup>11</sup> Daniel Bodansky. 1993 'The United Nations Framework Convention on Climate Change: A Commentary', *Yale Journal of International Law*, 18, p.462.

<sup>12</sup> IEA [International Energy Agency]. 1992. *Climate Change Policy Initiatives*, Paris: IEA, pp.24-5.

<sup>13</sup> Steven Bernstein. 2001. *The Compromise of Liberal Environmentalism*, New York: Colombia University Press.

<sup>14</sup> *Ibid.*

*quantitative* commitments had appeared in an earlier draft of the convention text but all such references were excised in the final text.<sup>15</sup> Instead, it was agreed that such specific matters should be negotiated later as part of a legal instrument to supplement the Convention. Accordingly, the 1997 Kyoto Protocol re-institutionalised the idea that mitigation should be pursued via domestic targets, albeit in a rather compromised form that reflects the discourse of ‘liberal environmentalism’. In contrast to earlier environmental and atmospheric agreements, the Kyoto Protocol tied domestic targets to a set of ‘flexible mechanisms’ which would enable states to meet their commitments in the most cost-efficient manner by investing in GHG mitigation in less-developed countries, or buying emissions credits through a trading system.<sup>16</sup> In part, this has been legitimised by the argument that developing countries will be the source of most emissions in the future, hence they ought to be brought under control now, even if this occurs at the expense of directly reducing developed countries’ emissions.

In the absence of appropriate legal codes, the norms of climate governance initially established the boundaries of appropriate conduct for responding to climate change. Defining *who* should take responsibility for mitigating climate change, and *how* such mitigation should be pursued, the norms outlined above guided state behaviour and shaped the agendas of the preliminary negotiations. Of course, norms are not fixed and immutable; instead, they are fluid and open to contestation and re-interpretation. As these norms have diffused throughout the international system they have gradually lost much of their original focus on historical emissions and domestic mitigation, and instead have increasingly directed attention to future emissions and transnational mitigation options, such as emissions off-setting. This normative shift, as I argue in the following section, risks institutionalizing a cycle of unsustainability and inequality.

### **Institutionalising unsustainability and inequality**

Shifting attention away from historical and present emissions to future emissions, and from domestic mitigation to transnational mitigation risks exacerbating both unsustainable and uneven development. This risk emerges from what is variously referred to as ‘remoteness’,

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<sup>15</sup> Bodansky, ‘The United Nations Framework Convention on Climate Change’, p.478; and Anil Agarwal, Sunita Narain, and Anju Sharma. 1999. *Green Politics*, New Delhi: Centre for Science and Environment, pp.38-9.

<sup>16</sup> UN, ‘Kyoto Protocol’.

‘displacement’, and ‘distancing’.<sup>17</sup> Here I’ll use Plumwood’s term of ‘remoteness’, which refers to the disruption of ‘connections and balances between decisions and their consequences’.<sup>18</sup> Remoteness manifests in a variety of forms including consequential, communicative, epistemic, temporal, and technological remoteness. Perhaps the most obvious manifestation is spatial remoteness: the spatial distance between the production of a problem and its resolution disassociates states and societies from the social and ecological consequences of their choices. ‘Remoteness’ has been institutionalized in global climate governance as attention has shifted from historical emissions to future emissions, and as action has shifted from domestic mitigation to transnational mitigation efforts. Several manifestations of remoteness are evident in processes of global climate governance.

Firstly, to the extent that the wealthy countries of the North are given an opportunity to avoid addressing the social and economic practices that produce an excessive level of GHG emissions within their domestic borders, temporal, spatial, and consequential remoteness becomes a problem. For example, the practice of emissions off-setting, which is characteristic of the Clean Development Mechanism (CDM) and Joint Implementation, entails temporal, spatial, and consequential remoteness by obscuring the long-term un-sustainability of a range of ecologically insensitive policies, practices, and systems. In this sense, the problem becomes a technical one of emissions per se, rather than a political problem concerning the activities which produce emissions; in other words, symptoms of the problem are being attended to rather than the cause of the problem. Emissions off-setting allows the challenge of confronting the cause of the problem (i.e. the un-sustainable nature of various social/economic/political practices) to be deferred to a future generation, while the present responsibility for dealing with the present symptoms (i.e., GHG emissions) is transferred to present generations in distant places.

The problem of remoteness which characterizes the CDM is exacerbated by its market-based character, which forces host countries in the South to compete with one another in the sale of carbon credits. The inevitable effect is a simplification of the offsetting project approval process. This problem is evident in India’s experience with the CDM. India’s Planning

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<sup>17</sup> Respectively, Val Plumwood. 2002. *Environmental Culture: The ecological crisis of reason*, London: Routledge; John S. Dryzek. 1987. *Rational Ecology: Environment and Political Economy*, Oxford: Basil Blackwell; and Thomas Princen, Michael Maniates and Ken Conca. 2002. Introduction: Confronting Consumption. In *Confronting Consumption*, edited by Thomas Princen, Michael Maniates, and Ken Conca. Boston: MIT Press.

<sup>18</sup> Plumwood, *Environmental Culture*, p.72.

Commission recommended that the sustainable development criteria of the CDM be considered in such a way that will ensure a 'maximum number of (CDM) projects'.<sup>19</sup> The implication here is that such criteria may be compromised in the interests of securing as much industry investment as possible from the CDM. As India's Centre for Science and Environment (CSE) has recently observed, the approval process in India has indeed been designed in such a way that precludes serious consideration of sustainable development requirements. The approvals body, or Designated National Authority (DNA), meets just once each month to assess between ten and forty project proposals. One representative of the DNA, R.K. Sethi, acknowledged that rejections were rare because the international consultants prepare good submissions.<sup>20</sup> Yet, an investigation carried out by the CSE has found serious flaws in the implementation of the CDM in India, many of which benefit commercial actors at the expense of local populations. The CSE visited two prominent CDM sites in India and found that no measures had been put in place to monitor the project's effect on sustainable development, and that there was no visible evidence that such requirements were being met. Moreover, the validity of accounts of community-based consultation carried out in preparation of project proposals was seriously called into question when it was found that the international consultant had attributed exactly the same questions and responses to two different communities, in different states, in relations to different projects.<sup>21</sup> This example clearly illustrates the potential dangers in deliberately creating space between the production of a problem and efforts to rectify it, as has occurred with the transnationalisation of domestic emission reduction targets.

The general neglect of international trade concerns in climate change negotiations has also produced significant spatial and consequential remoteness. This inattention has obscured the role of embodied emissions in sustaining inequitable patterns of production and consumption. In contrast to the prominent assumption that the wealthy countries of the North are de-materialising their economies as their consumption preferences gradually shift from material goods to services, analyses of the emissions embodied in imports reveal that the economic growth rates and consumption patterns promoted in the North are highly carbon-intensive.<sup>22</sup> The absence of these emissions from national emissions inventories is reflective of the spatial

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<sup>19</sup> Planning Commission. 2003. 'Report of the Working Group on National Action Plan For Operationalising the Clean Development Mechanism in India', December. [www.planningcommission.nic.in](http://www.planningcommission.nic.in).

<sup>20</sup> Ritu Gupta, Shams Kazi, and Julian Cheatle. 2005. 'Newest Biggest Deal', Down to Earth, 15 November. [http://www.downtoearth.org.in/cover.asp?foldername=20051115&filename=anal&sec\\_id=7&sid=1](http://www.downtoearth.org.in/cover.asp?foldername=20051115&filename=anal&sec_id=7&sid=1).

<sup>21</sup> Ibid.

<sup>22</sup> Ted Trainer. 2001. 'The "de-materialisation" myth', *Technology in Society*, 23:4, pp.505-14.

remoteness that has been institutionalised into the architecture of international climate governance: the responsibility for emissions is transferred to distant producers rather than making states responsible for their entire 'carbon footprint'.<sup>23</sup> Moreover, this is also reflective of consequential remoteness; as Muradian and Martinez-Alier note, this option of spatially disassociating one's domestic consumption from its production costs will not be available to developing countries 'because there will be no countries coming up behind them to which environmentally intensive activities can be reallocated'.<sup>24</sup> The consequences for affluent consumption are therefore shifted to developing countries, while the affluent consumers remain largely unaffected and ignorant of these consequences.

Inequality is inextricably bound up in remoteness. Existing inequality offers fertile conditions for remoteness to emerge, and the experience of the CDM has demonstrated that remoteness can also exacerbate this existing inequality. In the first instance, an unequal society is likely to be characterized by a disempowered group of people. The presence of such a group, as Plumwood explains, provides 'systematic opportunities and motivations to shift ecological ills onto others rather than to prevent their generation in the first place'.<sup>25</sup> The root of this problem lies in the disempowered position of a group of people in an unequal society: not only are these people often unable to adapt to environmental change by relocating or upgrading their existing living arrangements, but power imbalances also often leave them unable to demand justice and compensation from the distant perpetrators of some forms of degradation. The practice of transnational mitigation, whereby the emissions from ecologically insensitive activities are offset in distant and often impoverished places, risks maintaining and exacerbating existing inequalities (in emissions, incomes, and power) not only on a global scale but also at the national level. Again, the experience of India is illustrative. Indian economist, Smita Sirohi, suggests that the CDM has heavily emphasized industrial energy efficiency and renewable energy generation thus precluding any significant impact on rural poverty alleviation.<sup>26</sup> She further observes a concentration of CDM projects in the wealthier states of the South, with relatively few projects approved in the poorer states

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<sup>23</sup> J. Timmons Roberts and Bradley Parks. 2007. 'Fueling Injustice: Globalization, Ecologically Unequal Exchange and Climate Change', *Globalizations*, 4:2, pp.193–210.

<sup>24</sup> Roldan Muradian, and Joan Martinez-Alier. 2001. 'South–North Materials Flow: History and Environmental Repercussions', *Innovation: The European Journal of Social Sciences*, 14:2, pp.174–5.

<sup>25</sup> Plumwood, *Environmental Culture*, p. 81.

<sup>26</sup> Smita Sirohi. 2005. 'CDM: Is it a "Win-Win" Strategy for Rural Poverty Alleviation in India?', Paper submitted for discussion in International Conference on "Climate or Development," October 28-29, p.7. [http://www.hwwa.de/Forschung/Handel\\_&\\_Entwicklung/docs/2005/Events/Climate\\_or\\_Development/Sirohi.pdf](http://www.hwwa.de/Forschung/Handel_&_Entwicklung/docs/2005/Events/Climate_or_Development/Sirohi.pdf).

of the North-East. Data from 2007 reveals that this trend has continued with just one project proposed for the poorest state of Bihar compared to 68 projects either registered or approved in the wealthiest state of Andhra Pradesh.<sup>27</sup> The fact that the poorest segments of Indian society generate such small amounts of GHGs renders them ‘uncompetitive’ in the carbon market, despite the ostensible expectation that this market will contribute to sustainable development. The most attractive host for a company seeking to utilize the CDM is that which offers the greatest emissions reduction potential for the smallest degree of effort. Such a host is much more likely to be found within industry than an impoverished rural village or urban slum. This consequence of transnational market-based mitigation is not only undesirable and offensive from a social and moral perspective, but also from an ecological perspective. As outlined above, ‘inequality, whether inside the nation or out of it, is a major sponsor of ... remoteness’,<sup>28</sup> and its presence undermines the potential for responding to climate change in a sustainable manner.

### **Lessons for future earth system governance**

The experience of two decades of global climate governance outlined very briefly in the preceding two sections illustrates the challenge of securing sustainability and equity in future earth system governance. In this section I aim to draw three fundamental lessons from the climate experience. The first is based on constructivist insights into the process by which norms evolve and diffuse throughout the international system. This lesson centres on the way in which state actors align themselves with international expectations without effecting any fundamental shifts in existing systems, policies, and practices. The second and related lesson concerns the necessary role of civil society in promoting and monitoring particular norms at both the national and international levels. The third lesson focuses on two cross-cutting norms that I argue are suited to the challenge of securing sustainability and equity within earth system governance.

#### **1. Processes of norm diffusion and evolution**

Ideas may develop their normative force at the global level, but they become consequential only once institutionalised and acted upon at the state level where authoritative agency continues to lie. Therefore, it is important to understand the process by which norms diffuse

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<sup>27</sup> FICCI [Federation of Indian Chambers of Commerce and Industry]. 2007. Press Release: FICCI Leading Delegation to Sell Carbon Credits in the UK, April 27. [www.ficci.com/press/287/FICCI\\_CDM\\_Delegation\\_to\\_UK.doc](http://www.ficci.com/press/287/FICCI_CDM_Delegation_to_UK.doc).

<sup>28</sup> Plumwood, *Environmental Culture*, p. 81.

from the global level to the national level. Within International Relations, this process is generally analysed through a constructivist lens. It is beyond the scope of this paper to present an account of constructivist theory,<sup>29</sup> but it shall suffice to say that constructivism is defined by the key ontological assumption of the mutual constitution of structure and agency. From this perspective, outcomes are best interpreted and explained by considering the interaction and mutual reinforcement of key actors and social structures. Hence, in analysing cases of norm diffusion in international relations, constructivist scholars have highlighted the conditioning role of domestic actors and structures.<sup>30</sup> This scholarship tends to suggest that the successful diffusion of a particular international norm requires a reasonable degree of congruence between the norm and the domestic conditions of states. In the apparent absence of congruence, domestic actors may either reject an international norm or 'localise' the norm through an iterative process of congruence-building.<sup>31</sup> Two means through which congruence may be established are 'framing' and 'grafting'.<sup>32</sup> Entman's definition of framing is useful here:

To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation....<sup>33</sup>

Framing an issue in a particular way can therefore render it congruent with the existing domestic conditions. 'Grafting', meanwhile' is defined as 'institutionaliz(ing) a new norm by associating it with a preexisting norm in the same issue area, which makes a similar

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<sup>29</sup> For an excellent overview, see John G. Ruggie. 1998. *Constructing the World Polity: Essays on international institutionalization*, Routledge, London.

<sup>30</sup> Jeffrey, T. Checkel, 'Why Comply? Social Learning and European Identity Change'. Arena Working Paper 99/24, *Arena Centre for European Studies*, (1999). [http://www.arena.uio.no/publications/wp99\\_24.htm](http://www.arena.uio.no/publications/wp99_24.htm); Thomas Risse-Kappen. 2004. 'Ideas do not Float Freely: Transnational Coalitions, Domestic Structures, and the End of the Cold War', *International Organization*, 48:2, pp.185-294; Andrew P. Cortell and James W. Davis, 'How Do International Institutions Matter? The Domestic Impact of International Rules and Norms', *International Studies Quarterly*, 40 (1996), pp.451-478; Martha Finnemore and Kathryn Sikkink. 1998. 'International Norm Dynamics and Political Change', *International Organization*, 52:4, pp.887-917; Steven Bernstein. 2002. 'International institutions and the framing of domestic policies: The Kyoto Protocol and Canada's response to climate change', *Policy Sciences*, 35:2, pp.203-36.

<sup>31</sup> Amitav Acharya, 'How Ideas Spread: Whose Norms Matter? Norm Localization and Institutional Change in Asian Regionalism', *International Organization*, 58 (2004), pp.239-275. A related (but non-constructivist) concept to norm 'localisation' is Newell's 'domestication' of international policy commitments, see Peter Newell, 'Lost in Translation? Domesticating Global Policy on Genetically Modified Organisms: Comparing India and China', *Global Society*, 22:1 (2008), pp.115-36.

<sup>32</sup> Acharya, 'How Ideas Spread'.

<sup>33</sup> Robert Entman, 'Framing: Toward Clarification of a Fractured Paradigm', *Journal of Communication*, 43:4 (1993), pp.51-52.

prohibition or injunction'.<sup>34</sup> Given the inherent fluidity of norms and ideational structures at both the domestic and international levels, congruence should not be understood as a final and enduring condition: domestic perceptions of normative congruence may be disrupted as either international norms or domestic conditions evolve. Instead, congruence building should be understood as an integral and iterative aspect of the norm diffusion process. My own analysis of the diffusion of global climate governance norms in the context of three states (Australia, India, and Spain), found framing and grafting to be highly salient as actors sought to reconcile international expectations with domestic conditions.<sup>35</sup> While these mechanisms may have enabled actors to align themselves with global norms, they have proven entirely inadequate for triggering the radical shifts needed to advance long-term sustainability. The problem, I argue, is that these congruence-building mechanisms provide no scope for *procedural* rationality, instead they are based on purely *instrumental* rationality. Whereas instrumental rationality is concerned with aligning actions with achieving pre-given goals, irrespective of the desirability of those goals, procedural rationality applies to the level of the reasoning process and is concerned with deliberating on end goals as well as the means for achieving them.<sup>36</sup> Through the congruence building mechanisms of framing and grafting, global norms of climate governance have merely been absorbed into existing domestic structures, which in many cases embody ultimately unsustainable features such as emissions-intensive transport systems, urban designs that create dependencies on private vehicles, and policies of infinite economic and/or population growth.

Existing constructivist scholarship helps us understand how underlying ideational structures condition decision-making, but provides little insight into the potential for transforming structures that are evidently problematic. Outside the constructivist field, Bevir and Rhodes provide an insight via their concept of 'situated agency', which is based on the understanding that individuals 'can reason and act in novel ways ... (but) only against the background of the contexts that influence them'.<sup>37</sup> This constrained capacity for innovation is a source of potential change in underlying structures. By their very nature structures tend to remain

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<sup>34</sup> Acharya, 'How Ideas Spread', p.244.

<sup>35</sup> Hayley Stevenson, *The Diffusion of International Climate Governance Norms: A Critical Constructivist Analysis*. PhD Thesis. The University of Adelaide, Australia, 2009.

<sup>36</sup> See Herbert A. Simon, 'From substantive to procedural rationality', in Spiro J. Latsis (ed.), *Method and appraisal in economics*, Cambridge University Press, Cambridge, 1976, p.130; Walter F. Baber and Robert V. Bartlett, *Deliberative Environmental Politics: Democracy and Ecological Rationality*, MIT Press, Cambridge, 2005, p.17.

<sup>37</sup> Mark Bevir and R.A.W. Rhodes. 2006. *Governance Stories*. New York: Routledge, p.4

stable, but they can be modified if agents re-interpret their interests and/or understanding of “appropriate” behaviour. Bevir and Rhodes suggest that this capacity for innovation is likely to be triggered when actors are confronted with new ideas or problems that cannot easily be accommodated within their existing cognitive, ideational, or instrumental toolkits. In seeking to accommodate a new idea or solve a new problem, actors may be forced to interrogate their existing assumptions in such a way that produces a structural transformation. Of course, dilemmas are not guaranteed to generate transformations. At least two reasons for potential failure are immediately evident. First, an actor behaving or reasoning in an innovative way may simply be marginalized and ignored; and second, the new idea or problem may be re-framed to accommodate it within the existing structure. The dilemma presented by climate change has prompted some degree of innovative behaviour and reasoning but this has only produced small changes in the existing structures, rather than the transformations required for long-term sustainability. A possible explanation for this is that the dominant mechanisms of congruence-building, i.e., framing and grafting, rely on a limited number of elite actors with an evidently limited capacity for consequential innovative reasoning. Liberal democratic systems, with their three or four yearly electoral cycles provide a distinct disincentive to engaging in radically transformational behaviour. Yet, it is increasingly undeniable that responding to the problem of climate change will require a transformation of existing unsustainable structures: continuing to absorb the issue into these existing structures simply will not do in the long-term.

## **2. An alternative congruence-building mechanism: public deliberation**

Given the limited utility of framing and grafting for reconciling domestic conditions and global norms in such ways that foster sustainability, what is evidently required is an alternative mechanism that subjects dilemmas to genuine scrutiny and promises greater potential for reorganizing structures that are inconsistent with new knowledge. Given their apparent inadequate capacity for consequential innovative reasoning, an alternative congruence building mechanism will need to rely on the agency of a wider set of actors than we’ve seen in processes of framing and grafting. One possibility that is worth exploring is public deliberation, defined by Chambers as ‘debate and discussion aimed at producing reasonable, well-informed opinions in which participants are willing to revise preferences in light of discussion, new information, and claims made by fellow participants’.<sup>38</sup> Despite

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<sup>38</sup> Simone Chambers. 2003. Deliberative Democratic Theory. *Annual Review of Political Science*, 6, p. 309.

receiving sustained attention from democratic theorists,<sup>39</sup> the role of public deliberation has been under-explored in IR scholarship on norm diffusion, which has generally focused on the agency of state actors and a limited number of specific non-state actors. For the greater part of two decades, the problem of climate change has been treated predominantly as a technical problem. Viewed through a technical lens, the specific sources of emissions, and the social/political objectives they serve, are treated as irrelevant: avoiding dangerous climate change simply requires limiting overall global emissions. This obscures the need to collectively confront challenging questions of equity and value. As Parikh and Parikh have pointed out, we could prevent the annual emission of 1000 tons of GHG either by taking eight hundred cars off the road in the United States, or by asking twelve thousand Bangladeshis to stop eating rice.<sup>40</sup> These figures belie the assumption that GHG emissions are purely material phenomena that can be satisfactorily mitigated through technocratic processes divorced from ethical considerations. Socio-economic trade-offs will be inherent and unavoidable if we are to avoid dangerous climate change, and these ought to be openly and critically deliberated on rather than denied. Responding to global environmental crises in a manner compatible with long-term sustainability will require collective reasoning about collective goals. Taken-for-granted ideas and goals, such as the importance of universally sustained economic growth and accumulation, and the inalienable sovereignty of the citizen-consumer in liberal democracies, are difficult to defend once their social and ethical implications are exposed through reasoned argument. Some assumed goals are simply incompatible with the finite nature of the atmosphere and other natural 'sinks', a fact that may potentially be exposed through public reasoned argument. It is now indisputable that the atmosphere has a limited capacity to absorb the greenhouse gases we emit without the climate system being affected, hence decisions on how to allocate atmospheric space are unavoidable, what is important is that these decisions emerge from informed and reasoned debate. So far we have seen very little of this in global climate governance, either at the international level where norms have been defined or at the national level where they have been enacted. Civil society organisations will have an important role to play in enabling such deliberation. Inclusive participation in processes of critical public deliberation may generate new

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<sup>39</sup> See, for example, John S. Dryzek. 2000. *Deliberative Democracy and Beyond: Liberals, Critics, Contestations*. Oxford: Oxford University Press; Jürgen Habermas. 1996. *Between facts and norms: Contributions to a discourse theory of law and democracy*. Cambridge, MA: MIT Press; James Bohman. 1999. Survey Article: The Coming of Age of Deliberative Democracy. *Journal of Political Philosophy*, 6 (4): 400-425; and Chambers. *Deliberative Democratic Theory*.

<sup>40</sup> Jyoti Parikh and Kirit Parikh. 1991. *Consumption Patterns: The Driving Force of Environmental Stress, A Report Prepared by IGIDR for the UNCED*. Bombay: Indira Gandhi Institute for Development Research, p.43.

knowledge and awareness that in turn provides a more conducive setting for consequential innovative reasoning on the part of authoritative actors. Whereas mechanisms of framing and grafting may allow state actors to absorb global norms into existing goals and systems, deliberation may offer a mechanism for building normative congruence through structural transformation. Public deliberation alone is unlikely to be a panacea for unsustainability, but it is likely to be an important part of sustainable and equitable earth system governance. Fortunately, as we move towards the 2009 climate change summit in Copenhagen, public attention to the issue of climate change is greater than at any other time during two decades of global climate governance. Maintaining this public momentum and enhancing critical scrutiny of domestic and global goals may bring us closer to the transformations we need to see.

A serious challenge that remains is how to maximize the impact of public deliberation on decision making and policy implementation. This challenge will need to be confronted in both the domestic and global contexts. As states will remain the principal actors in the international system for the foreseeable future, and norms become consequential only through state enactment, critical deliberation at the domestic level may be more immediately decisive in the pursuit of sustainability and equity. In democratic states, existing mechanisms of accountability provide an opportunity, albeit a limited one, for transmitting ideas that emerge from public deliberation to the sites of decision making and policy implementation. There is also clearly a role for greater and more inclusive critical reasoning at the global level where these mechanisms are entirely absent. Although states are the actors with authority for enacting global norms, states themselves remain embedded and interconnected in a global system that defines the broad parameters of climate governance. The challenge of maximizing the impact of inclusive public deliberation at this level is even more acute than at the domestic level, not only because of the absence of accountability but also because deep inequalities and inadequate representation are pervasive in the global system. This challenge is the focus of a research project currently underway at the Australian National University's Centre for Deliberative Democracy & Global Governance.<sup>41</sup>

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<sup>41</sup> The Deliberative Global Governance of Climate Change.  
<http://deliberativedemocracy.anu.edu.au/ccglobalGovernance.html>.

### **3. Governance principles for sustainability and equity**

The precise norms for governing earth systems should ideally emerge from the type of critical and inclusive deliberation that I have outlined above. In this section, I draw on the experience of two decades of global climate governance to argue for two principles to orient this governance. These principles are, I argue, suited to the task of securing both sustainability and equity in future earth system governance. The first is an extension of ‘common but differentiated responsibilities’ to the domestic sphere to confront the positive correlation between inequality and ecological harm. The rationale for the norm of CBDR lies in the recognition of global inequalities in historical and present emissions of greenhouse gases, as well as consequent differences in levels of development and capacities to contribute to global mitigation efforts. These inequalities are perhaps most acute between states; for example, in per capita terms, India’s emissions amount to just four percent of those of the United States, eight percent of Germany’s emissions, and ten percent of Japan’s emissions.<sup>42</sup> Similarly, in per capita terms, the emissions of developing countries as a whole are just sixteen percent of those of the developed countries as a whole.<sup>43</sup> However, as Greenpeace India and other commentators have established, the levels of inequality in energy consumption and GHG emissions within many developing countries is as acute as that between developed and developing countries.<sup>44</sup> Siddiqi reveals that in the Indian city of Pune, for example, the high income group uses approximately nine times as much electricity as the low income group; while within South Asia as a whole, the upper-middle class consumes approximately the same amount of energy as the middle class in many OECD countries.<sup>45</sup> Recognition of the extent of emissions inequalities within states offers grounds for extending the CBDR norm from the international sphere to the domestic sphere. Indeed, failure to extend this norm will allow consuming elites in the South to continue to ‘hide behind the poor’ and obscure the unsustainable consumption patterns that already exist among elites in the South. This proposal has received some attention in recent years. Jiahua Pan, for example, has argued for institutionalizing this extension by tying emissions limitation commitments for developing countries to the fulfillment of the Human Development Goals; this, he argues, would ensure

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<sup>42</sup> Government of India. Ministry of Environment and Forests. India’s National Communication to the UNFCCC, 2004, Chapter 2, p.32. <http://www.natcomindia.org/natcomreport.htm>.

<sup>43</sup> Kevin A. Baumert, Tim Herzog, and Jonathon Pershing, ‘Navigating the Numbers’, World Resources Institute, 2005. <http://www.wri.org/publication/navigating-the-numbers>.

<sup>44</sup> G. Ananthapadmanabhan, K. Srinivas and Vinuta Gopal, ‘Hiding Behind the Poor’.

<sup>45</sup> Toufiq A. Siddiqi, ‘Energy inequities within developing countries An important concern in the global environmental change debate’, *Global Environmental Change*, 5(5), 1995, pp450-2.

that greenhouse gas emissions are tied not directly to economic growth but to human development.<sup>46</sup>

The second specific principle is 'remoteness reduction'. Remoteness, in its various manifestations (technological, spatial, consequential, temporal, epistemic, and communicative), lies at the heart of the global climate governance paradox. Efforts to respond to climate change are therefore unlikely to foster long-term sustainability unless the principle of 'remoteness reduction' guides the choice of mitigation measures. This means confronting the conditions and processes which enable a disassociation of the benefits of development and material accumulation from the damage that it effects on human and non-human others. The value of this principle is explained by Plumwood in the following terms:

(r)emoteness reduction is a good decision-making principle, because remoteness disturbs feedback and disrupts connections and balances between decisions and their consequences that are important for learning and for maintaining motivation, responsibility and correctness.<sup>47</sup>

This principle has enormous relevance in the context of global climate governance where existing inequalities and widespread acceptance of cost-effective emissions off-setting has created new opportunities for suppressing the signs of unsustainability. Responding to the problem of global climate change in a fair and sustainable manner will require a reduction in the distance between the emission of GHGs and the effects and mitigation of these gases. While spatial distance is the most obvious manifestation of remoteness here, it will also be important to reduce other forms of remoteness, including temporal, technological, and consequential remoteness. What this means in practice is that the responsibility for avoiding emissions and mitigating the effects of unavoidable emissions ought to be borne by those enjoying the benefits of those emissions. It now seems inevitable that future generations will be adversely affected to some degree by historical and present emissions, but the principle of 'remoteness reduction' demands that all feasible effort be taken to assume responsibility in the present rather than defer it to the future. It also means that potential technological solutions ought to be subject to critical scrutiny that considers more than mere cost-

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<sup>46</sup> Jiahua Pan. 2005. Meeting Human Development Goals with Low Emissions : An Alternative to Emissions Caps for post-Kyoto from a Developing Country Perspective. *International Environmental Agreements*, 5: 89-104.

<sup>47</sup> Plumwood, *Environmental Culture*, p.72.

effectiveness. To the extent that technology is mobilized irrespective of its potential impact on human and non-human others, technological remoteness risks emerging as a problem.<sup>48</sup>

## **Conclusion**

Formal governance arrangements involving both state and non-state actors will continue to be important for regulating the interactions between humans and non-human natural systems. Unregulated interactions are quite likely to continue to undermine the proper functioning of natural systems, including their capacity to support human life. However, as the experience of two decades of global climate change governance reveals, regulated interactions may also fail to foster sustainability and equity at all levels from the local to the global. Ensuring that the norms embodied in earth system governance arrangements are defined and evolve in a way that does foster sustainability and equity is a colossal challenge. Drawing on the case of climate change, I have argued here that the dominant diffusion mechanisms of framing and grafting are ill-suited to addressing this challenge. These mechanisms may have enabled some states to align themselves with international expectations in the least disruptive manner possible, but they have failed to address many of the sources of excessive greenhouse gas emissions. What is required is an alternative normative congruence mechanism that promises greater potential for transforming unsustainable structures. Here I have mooted the possibility of public deliberation, but the challenge of maximising the impact of deliberation on decision-making in national and international contexts is one that requires further consideration. Although I acknowledge that the precise definition and scope of governance norms ought to emerge from such deliberation, I have presented my own argument here for institutionalising two norms. These norms, I argued, are suited to the task of securing sustainability and equity in future earth system governance. The first is ‘common but differentiated responsibilities’ between and within states. International and intra-national CBDR would help to secure equitable access to global public goods such as the atmosphere, while ensuring that unsustainable practices are not obscured by poverty in the South. The second norm emerges from the work of Val Plumwood and other green political theorists, and can be labelled ‘remoteness reduction’. Whereas transnational mitigation allows a disassociation between the human practices that produce pollution and the necessary efforts to mitigate this pollution, a norm of ‘remoteness reduction’ would reinforce the connections

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<sup>48</sup> *Ibid.* p.73.

between decisions and their consequences and thus ensure that responsibility is appropriately allocated.

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