



## CENTRE FOR POLICY RESEARCH CLIMATE INITIATIVE

Working Paper 2012/1 (November)

### THE POLITICS OF CLIMATE CHANGE IN INDIA: NARRATIVES OF EQUITY AND CO-BENEFITS

NAVROZ K. DUBASH

**Abstract** India occupies an intriguing dual position in global climate politics – a poor and developing economy with low levels of historical and per capita emissions, and a large and rapidly growing economy with rising emissions. Indian climate politics has substantially been shaped around the first perspective, and increasingly, under international pressure, is being forced to grapple with the second.

This review of Indian climate politics examines the initial crystallization of Indian climate positions and its roots in national climate politics, and then examines the modest ways in which climate politics have been revisited in domestic debates since about 2007. Following elucidation of these themes, the paper turns to a discussion of new directions for Indian climate policy and their moorings in domestic climate politics.

**Contact** [ndubash@gmail.com](mailto:ndubash@gmail.com)

**Credits** This Working Paper has been submitted to Wiley Interdisciplinary Reviews (WIREs) Climate Change and is under review.

## **The Politics Of Climate Change In India: Narratives Of Equity And Co-Benefits**

**Navroz K. Dubash**

India occupies an intriguing dual position in global climate politics. As a developing economy with a substantial poverty problem and low levels of historical and per capita emissions, India is both likely to face considerable impacts and has limited capacity to address the problem. As a large country and one that has transitioned into a rapidly growing economy, India gets called on to participate actively in addressing the global climate challenge. Indian climate politics has substantially been shaped around the first perspective, and increasingly, under international pressure, is being forced to grapple with the second.

In making this transition, discussion of climate change has also shifted from being a narrow sub-set of Indian foreign and diplomatic policy, one that was almost exclusively the preserve of negotiators and diplomats, to a broader debate on whether and how development trajectories should internalize climate mitigation and adaptation goals. In the course of making this shift, a far broader swathe of India's society – business, media, state bureaucrats, environmentalists – have been drawn into the climate debate. While the debate has been joined, there are by no means clear answers. The result is a sprawling apparatus of domestic climate policy which has yet to fully be put in place, let alone assessed. This review of Indian climate politics first examines the initial crystallization of Indian climate positions and its roots in national climate politics. It then turns to an examination of the ways in which climate politics have been revisited in domestic debates since about 2007. Central themes are the consistency of an equity frame for Indian climate politics, and the recent emergence of the idea of 'co-benefits' based actions that deliver both development and climate gains. While this latter formulation is driving domestic policies, it is not, as yet, providing a basis for re-thinking India's international negotiating position. A third section discusses new directions for Indian climate policy and their moorings in domestic climate politics.

## **TRACING THE ARC OF INDIAN CLIMATE POLITICS: THE CENTRALITY OF EQUITY NARRATIVES**

Indian climate politics is, in large part, a story of remarkable continuity. The frame of ‘climate equity’ – understood predominantly in a North-South context around dividing up a global commons -- was established relatively early as the dominant frame. This frame has also had the effect of shaping climate politics around engagement with the international negotiation context, insulating Indian domestic political and policy spaces from engagement with climate concerns. This section examines the crystallization of the equity and climate change narrative, the reasons for its continuity over time, and the partial ways in which that narrative has been modified and questioned in recent years.

### **Establishing the Frame**

From its opening line, the Centre for Science and Environment’s (CSE) evocatively titled “Global Warming in an Unequal World” sets the stage for and foreshadows the first two decades of Indian climate politics: ‘The idea that India and China must share the blame for heating up the earth and destabilising its climate ... is an excellent example of environmental colonialism.’<sup>1</sup> Reacting to a report from the Washington DC based World Resources Institute, Agarwal and Narain make three points that remain central to contemporary Indian understanding of the climate debate: contribution to stocks of greenhouse gas emissions, rather than annual flows of emissions, constitute the appropriate metric for assessing responsibility for causing climate change; a per capita allocation of global sinks is the only morally defensible metric, and that a distinction should appropriately be made between ‘survival emissions’ of the poor and ‘luxury emissions’ of the rich.

Voices such as CSEs’ were particularly important in the early days of the climate negotiations, when the Government of India, and the Ministry of Environment and Forests in particular, were relatively new to the issue.<sup>2</sup> An early scholarly treatment of India’s negotiating position suggests that while per capita based formulations of equity were part of the government’s thinking at the time, the CSE report “encouraged” the government to adopt the idea<sup>3</sup>. One important reason this perspective was adopted was that it was broadly shared among others active in the debate. For example, another major and influential think-tank, the (then) Tata Energy Research Institute (TERI), while adopting a less strident and more behind the scenes approach, also undertook a critique of the WRI report.<sup>4</sup> Among those engaged in the debate within India, there was broad agreement on the possible negative impacts of climate change on India, the possible constraining effect of a climate treaty, and the need for India to insist that industrialized countries must be held responsible for their emissions.<sup>2</sup>

The substantive agreement between these two non-governmental heavy-weights contributed to a broader national consensus. Thus, at the outset of substantive negotiations in 1991, India's delegation leader had stated: "The problem... is caused not by emissions of greenhouse gases as such but by *excessive levels* of per capita emissions of those gases ... It follows, therefore, that developed countries with high per capita emission levels are responsible for incremental global warming... the principle of equity should be the touchstone for judging any proposal."<sup>5</sup>

By the conclusion of the process, India had played a substantial role in shaping a position of the global South along these lines through coalition diplomacy and careful textual work. For example, building on the ideas articulated above, India modified the IPCC's formulation of 'common responsibilities' across countries to 'common but differentiated responsibilities' reflecting the importance India placed on appropriately allocating responsibility across countries for causing the problem and hence for action.<sup>6</sup> India also played a leading role in calling for new and additional funding and for creation of a separate institutional mechanism for climate funding.<sup>2</sup>

It is important to locate these positions in the context within which they were forged.<sup>7</sup> In the early 1990s, there was a groundswell of optimism regarding global cooperation on environmental problems, fuelled largely by the success of the Montreal Protocol. At the same time, perspectives on global environmental issues were not innocent of two decades of tension over economic cooperation, heightened by a decade of structural adjustment in the 1980s. Developing countries made little headway in shaping mechanisms for global economic cooperation during this period, and with consequent diminished faith in the global system. As a consensus building device, 'sustainable development' at best papered over these cracks; there remained concern in developing countries that environmental objectives would limit growth. A firewall built around 'differentiation' between north and south, with a corresponding set of financial obligations was seen as the minimum necessary to allay developing country concerns.

### **Half a Toe in the Water: The Clean Development Mechanism**

India's engagement with the Clean Development Mechanism (CDM) represents a relatively minor modification from the established frame of Indian climate politics. But it also shows how Indian climate politics is formed in continual dialogue with global discussions. In keeping with India's avowed position of keeping the pressure on industrialized countries for mitigation action, India's initial reaction to CDM

(then 'Activities Implemented Jointly') was one of scepticism, informed by a view that CDM would be a way for developed countries to get developing countries to get the work done on the cheap.<sup>6</sup>

Within a few years, however, the perspective changed, driven by new actors who crafted a new understanding of the mechanism. The Confederation of Indian Industries, a leading industry association advocated Indian participation in the CDM and in its institutional design.<sup>6</sup> This advocacy by CII was also given heft by academic research on the subject undertaken by influential non-governmental organizations such as TERI.<sup>2</sup> An acceptance and even embrace of CDM was made possible by re-interpreting CDM as consistent with a contractual frame for action that India had been advocating – India would take on mitigation commitments only when they were financially supported to do so.<sup>6</sup>

India rapidly became a leader in generating CDM projects, accounting for 53% of projects generated globally in 2005, although more recently India has been substantially outpaced by China.<sup>8</sup> CDM therefore created an important constituency for direct engagement with one aspect of the global climate regime – Indian business – with potential implications for domestic politics of climate change. However, it is important not to overstate the case – Indian business remains surprisingly disengaged and fragmented in its engagement with climate politics.

### **Re-visiting the Frame**

The early framing of Indian climate politics has proved to be remarkably durable, leading to a consistent negotiating position over two decades. This international stance also informed domestic climate politics: climate change is an issue of north-south global contestation; India should use the international process to hold industrialized countries to account; and the issue of climate change is relatively irrelevant to domestic politics. Atteridge attributes this consistency in part to personalities – the role of a small number of senior bureaucrats operating in comparative isolation from other foreign policy influence – and to the dominance of the equity frame.<sup>9</sup> However, these explanations by themselves are insufficient to explain consistency in Indian climate politics. It is also necessary to explore the continued basis for public support for the equity frame (or at least the absence of active disagreement).

Acceptance of the equity frame has been widespread during the two decades of the UNFCCC process. Significantly, this consensus included technical and professional participants in the global climate debate, who could have been expected to be more aware of climate impacts. Indeed, interviews with such experts reported that they found participation in international assessments a “waste of time” because political action is seen as industrialized countries responsibility.<sup>10</sup> Kandlikar and Sagar<sup>11</sup> note

that the dominant framing of the problem as a collective global problem innocent of past responsibility further alienates southern researchers who view the problem through an equity lens. Beyond researchers, Indian environmental activists have also historically approached the climate agenda with scepticism and as a distraction from local environmental problems<sup>12</sup>.

This relatively monolithic political stance has developed multiple and contending strands in recent years for a variety of reasons. Most significant, the global negotiating context has changed. In the build up to the conclusion of the first commitment period of the Kyoto Protocol, large developing countries were placed under growing pressure at a succession of Conference Of Parties (COPs) from Bali (2007) onwards to articulate formulations for and the conditions under which they would accept climate mitigation responsibilities.<sup>13, 14, 15</sup> The various formulations debated over time, such as 'sustainable development policies and measures', 'nationally appropriate mitigation actions' and greenhouse gas intensity targets all force engagement with what countries are willing to do within their borders. India has had to perforce engage this question.

In addition, the global geopolitical context has changed considerably since the early 1990s in ways that are highly relevant to India.<sup>6</sup> Along with other rapidly industrializing countries India has benefited from several years of high economic growth despite a period of global economic slowdown, and is more assertively claiming a seat at the global high table. In the climate talks, this assertion has been facilitated by formation of the "BASIC" bloc of countries (Brazil, India, South Africa and China). Significantly, in terms of per capita indicators of economic progress or greenhouse gas emissions, India has more in common with least developed countries than with the emerging rapidly industrializing economies, but through its own negotiation strategies and external perception tends to be increasingly identified with the latter rather than with the former,<sup>16</sup> a point that has aroused criticism from long-standing allies in the G-77 such as Bangladesh.<sup>17</sup> India's own foreign policy compulsions, such as negotiation of the Indo-US Nuclear deal, have led to pressures for climate change positions to be more closely aligned with broader foreign policy.<sup>18</sup>

## **INDIAN CLIMATE POLITICS REVISITED**

In the period surrounding the Copenhagen COP in 2009, the Government had issued several statements and pronouncements, including a commitment to limit India's emissions per capita to the average levels of industrialized countries, a Copenhagen emission intensity pledge, and a National Action Plan on Climate Change (which are discussed later in this review). Several commentators have noted and

applauded these measures, and sought to interpret them as part of a larger shift in India's climate policy and politics.<sup>19, 20</sup> This perception of a shift is based on a change in language at the global level and the institution of various national climate programmes. While there have undoubtedly been interesting developments, to a substantial extent the perception of a sea-change is over-drawn. While India has indeed kept pace with declarations of intent from other developing countries notably the Copenhagen pledges -- and instituted some far-reaching domestic programmes, it would be incorrect to read from this a fundamental shift in domestic politics of climate change in India. In part, the change in global messaging was driven by personality politics in the form of the then incumbent Minister of Environment and Forests, Jairam Ramesh.<sup>6</sup> Beyond this, however, the domestic political story is a subtle, incomplete and contested shift in emphasis and framing. Here, I explore this shift as it is manifested first in debates among various sectors of Indian political society, and then with reference to particular key themes that have emerged in the Indian climate debate.

### **Domestic Constituencies**

Climate change has historically been a non-issue in Indian organized politics given pressing short term domestic concerns of poverty, provision of basic services and economic management. This seems unlikely to change. As a former Minister of Environment and Forests puts it: "Climate change as an issue is not a constituency mover."<sup>21</sup> At the same time, the issue of climate change has received growing attention within the organized political system, albeit within the existing framing. Highly instructive are two debates in Parliament held before and after the Copenhagen COP. The Lok Sabha or lower house debate signalled an acceptance of the seriousness of climate change as a problem, some discussion of local impacts, and a clear and repeated articulation of developed country responsibility for action. The post-Copenhagen debate in the Rajya Sabha (upper house) focused almost exclusively on climate change as an issue of foreign policy, and specifically on whether the government had adhered sufficiently firmly to its 'red lines,' the objective of which were to ensure that India does not subject itself to obligations that limit growth and development. Notably, there was not a single speaker who explored whether the Copenhagen Accord sufficiently addressed the challenge of climate change. India's interests were entirely constructed in terms of national space for development and not around an effective global climate agreement. However, some attention to local impacts by elected Parliamentarians provides an indication, however mild, of a trend toward engagement with the issue in ways directly relevant to local constituents.

In another barometer of national politics, coverage of climate change in the media has been steadily increasing, although existing studies are limited to the English language print media alone.<sup>22, 23</sup> In a study of English newspapers from September 2009 to March 2010, Jogesh found that global climate politics dominated the coverage (57%) while domestic politics and policies (which also included intrigue about the composition of India's negotiating team) accounted for 21% of coverage. Climate science and business stories accounted for 10% and 5% respectively. These data suggest the continued dominance of the international negotiating process in climate coverage. However, there were some opinion pieces that noted emerging economy emissions can no longer be entirely ignored in a global negotiation process, although these were outnumbered by opinion pieces that argued the problem is caused entirely by industrialized countries. A common perspective was that emerging economies should indeed do more, but in the context of leadership for action from industrialized countries and when they are supported to do so through finance and capacity. Taken collectively, the media trends suggest a continued dominance of the international process and a conviction in the responsibility of industrialized countries to lead action, along with some indications of conditional consideration to domestic policy and action.

Indian environmentalists would appear to be a natural constituency for robust support of national mitigation action. However, Indian environmentalists' perspectives have been largely shaped by a broader idea of Southern environmentalism as inextricably tied to concerns of equity.<sup>12</sup> This leads them to align with, indeed forge as in the case of Centre for Science and Environment, the dominant national narrative on industrialized country responsibility and per capita based allocations of carbon space. Moreover, environmentalists have been concerned that domestic environmental agendas risk being subverted by the climate agenda with problematic consequences, such as a climate-driven policy tilt toward nuclear power or plantation forestry, both issues of contention in Indian environmentalism.<sup>24</sup> More recently, there has been a slow progression from this perspective toward one that sees value in integrating climate change into a broader environmentalism in a manner that simultaneously takes seriously justice, local environment and development agendas, and climate science.<sup>12, 24</sup> Achieving this synthesis is, however, still a work in progress.

Recent work suggests that there is a broadening and deepening of cross-sectoral networks around climate change, for example networks of municipalities, of national and international NGOs and of regional NGOs.<sup>25</sup> These networks typically operate by attaching their favoured solution to climate change, in an effort to derive benefit from the growing relevance of the climate problem. However, in



an illustration of the continued hold of the central framing of climate change in India, these networks constrain themselves to maintain consistency with the dominant national frame, and often bump up against the insistence on a continued divide between national and international policy on climate change. For example, during a set of regional hearings on climate impacts, a regional network steered clear of direct critique of the Government of India, in favour of maintaining a larger Southern solidarity for the international process.

The Indian business community has only recently woken up to the issue of climate change, but in partial and fragmented ways. In 1998, one observer described industry as “unmobilized and uninvited.”<sup>2</sup> As described above, the business community then took a limited interest in the CDM process. More recently, a section of organized business, the Confederation of Indian Industry, has weighed in with public positions in support of India’s Copenhagen voluntary emissions-intensity target, and has also engaged with voluntary emissions disclosure initiatives.<sup>6</sup> However, another segment of business, the Federation of Indian Chambers of Commerce and Industry, issued a denouncement of the target, arguing that any action by India and Indian industry should be linked to provision of finance.<sup>7</sup> Notably both these views are extremely partial, and exclude the entire range of small and medium sized enterprises in India.

### **Domestic Debates – New Directions**

As the discussion of various sectors of the Indian policy suggests, the climate debate in India has become more complex and multiple stranded in recent years. Here, I discuss three aspects of the debate that have been particularly salient to shaping Indian climate politics: the ‘hiding behind the poor’ debate, perspectives on climate adaptation, and the importance of energy security as a dominant narrative for Indian energy.

In 2007, Greenpeace-India issued a report examining disparities in emissions levels across economic classes in India, and accusing Indian elites of ‘hiding behind the poor.’ The report self-declaredly sought to provoke a debate on climate justice within India by highlighting high levels of disparities between emission levels across the top and bottom classes and between rural and urban India, a point validated by other, more robust studies with larger data sets.<sup>26</sup> However, coming as it did shortly before the Bali COP and a drum roll of calls for India to take on emission limitation obligations due to growing consumption by its middle classes, the report also aroused intense criticism within India as undercutting India’s negotiation stance. Counter-reports showed emissions at equivalent income classes were much higher in the US than in India, suggesting that the salient frame for climate justice remained

cross-country comparisons. For example, in 2004 the emissions of the top 10% of urban India were 7 tons CO<sub>2</sub>/yr compared to average consumption levels of 20 tons CO<sub>2</sub>/yr in the US, and just over 10 tons CO<sub>2</sub>/yr in Germany.<sup>27</sup>

While some within India have suggested the internal disparities call into question the legitimacy of the Indian per capita position, at least to the extent it is not tied to attention to rectifying internal disparities<sup>28</sup> others suggest that the developed world is hiding behind India's rich as much as the Indian rich are hiding behind the poor.<sup>29</sup> On balance, the hiding behind the poor debate has by no means dislodged broad acceptance of the per capita norm as a way of addressing climate justice, but it has nuanced the debate by highlighting India's domestic distributive challenges. By so doing, it has, to some limited extent, forced the climate spotlight inward, and not only on external North-South disparities.

A second important theme is growing awareness of climate damages and an attendant attention to climate adaptation, in rhetoric and reality. A growing number of studies are emerging that carefully document and publicize climate impacts and costs. For example, one study conclusively finds cultivation of apples in the Himalayan belt is shifting to higher altitudes, a finding confirmed by both quantitative data and farmer perceptions.<sup>30</sup> Another examines and decomposes the cost of sea level rise to one coastal state.<sup>31</sup> The Government of India has also taken concrete measures to systematize data gathering on climate impacts<sup>32</sup> as well as encouraging states to undertake systematic efforts to mainstream climate concerns into sectoral planning.<sup>33</sup> These efforts are backed by large scale and comprehensive mapping of resources and the effects of climate change on them, for example in the water sector.<sup>34</sup>

However, it would be a mistake to assume that growing attention to and concern over climate adaptation necessarily translates into growing commitment to climate mitigation. As even India's environmentalists argue, unilateral mitigation by India will do little, given that India's emissions are about one twentieth of the global total.<sup>12</sup> Indian mitigation action only helps to the extent that it could leverage more aggressive global action by others, notably developed countries.<sup>18</sup> Concern with climate impacts and adaptation, therefore, reinforces rather than undermines concerns with equitable sharing of the mitigation burden.

Perhaps the single most important source of actions that have the effect of climate mitigation in India are driven by another objective entirely – energy security.<sup>35</sup> By contrast to climate mitigation, pursuit of energy security enjoys considerable political support, in a context where India's domestic supplies are increasingly hard to access and of uncertain quantity, global energy demands and therefore prices are

rising, and geopolitical conditions in the Middle East and elsewhere raise growing concerns about predictability of supply. Many measures taken to address climate change, notably promoting end-use energy efficiency, and pursuing renewable energy supply, are consistent with decreased greenhouse gas emissions. In the words of India's finance Minister, It is because we recognize the linkages between climate change and energy security that we have adopted a National Action Plan on Climate Change.<sup>36</sup>

The explicit linkage between development objectives and climate objectives has been facilitated by India's stated approach to climate action based on the pursuit of 'co-benefits' – measures that 'promote ... development objectives while also yielding co-benefits for addressing climate change effectively'<sup>37</sup>

This

is not simply a matter of terminology or classification; the articulation of co-benefits reduces a potentially important source of dissonance in India's energy policy. Prior to articulation of this approach, there was a perceived risk among policy circles that promoting clean energy and energy efficiency could be strategically harmful, as it could be interpreted as evidence that India could and should undertake climate mitigation using its own resources, and also that India could develop with a lower allotment of carbon space.<sup>35</sup> The political priority given to actions to address energy security, and the alignment of climate mitigation as a potential co-benefit of such action, has created the impetus for policies that have the effect of climate mitigation, although they may not be primarily labelled as such.

### **Three Contending Narratives**

Taken collectively, the evidence across sectors of the Indian polity and the emergence of new areas of discussion suggests that debate on climate change has moved beyond an exclusive focus on the international negotiations context, to also ask questions about India's role and domestic policy. But there is little agreement on what India's domestic position should be with regard to climate change and whether and how this position should be embedded in the international climate regime. The range of possible political positions can usefully be summarized along three perspectives.<sup>38</sup>

The first perspective might be called the *growth-first realist* stance, which views climate change more as a geopolitical threat than an environmental one. Consequently, the focus is on achieving rapid growth, and staving off any international commitments that might threaten growth. Equity in climate outcomes is limited to a cross country concern, arising from a mix of principled and strategic concerns.

A second position, *sustainable development realist* is focused on pursuing a co-benefits based approach to sustainable development at home. However, a persistent scepticism of the international negotiation process rooted in the low probability of the process delivering a fair outcome leads to calls to de-link

domestic policy from the global process. While commitment to equity, including to domestic distributional questions, is likely to be genuine, this is framed as a domestic debate alone. This position can lead to a somewhat schizophrenic stance—contesting growth first realists at home and making common cause overseas.

A third stance, *sustainable development internationalists*, differs from the second only in greater emphasis on the need and urgency for an internationally effective climate regime, and therefore greater willingness to link India's co-benefits based actions -- but only co-benefits based actions that are justified from a developmental perspective -- to a global regime. While natural allies with the second category, based on a shared commitment to sustainable development outcomes and equity, in practice this alliance has failed to materialize, with realists of both stripes dismissing internationalists as naïve about the global politics of climate change.

The centre of gravity of Indian climate politics rests with the second position – *sustainable development realists*. Interpretations of a swing toward the third perspective<sup>39,19</sup> were driven quite strongly by the personality politics of an outspoken Minister of Environment and Forests, rather than an underlying shift in Indian climate politics, and did not outlast that Minister's tenure. Indian climate politics supports domestic measures toward adaptation, and mitigation measures that are consistent with domestic development objectives. It does not, however, so far, support active utilisation of domestic policy as an instrument through which to engage and shape the international process. This is not to suggest that domestic and international climate policy occupy separate spheres, far from it. Indeed, Indian domestic policy has undoubtedly been influenced by global pressures to demonstrate a commitment to action. The result has been a flurry of policy activity in the years since the Bali COP of 2007.

## **NEW DIRECTIONS IN INDIAN CLIMATE POLICY**

Consistent with the emergence of a co-benefits frame as the defining construct for Indian policy on climate change, the Government of India has embarked on a series of plan and policy development processes driven by this approach. This process defies easy summary, because it is of recent vintage, is work in progress, and relatively little analysis is available. Moreover, the full assemblage of policy efforts is sprawling and includes international pledges, national plans and policy formulations and state-level plans, all of which do not cohere neatly.

Arguably the hub of this array of policy-making efforts is the National Action Plan on Climate Change.<sup>37</sup> The NAPCC was built around the establishment of eight national 'missions' aimed at integrating

mitigation and adaptation aspects of climate change into national policies across a range of sectors. Some of these missions have specific focus and targets, such as a Solar Mission aimed at enabling 20,000 MW of solar power by 2022.<sup>40</sup> Others, such as a National Water Mission, have broader and more diffuse objectives including water conservation, creation of a database, and promotion of basin level integrated water management.<sup>41</sup> Other missions focus on energy efficiency, agriculture, Himalayan ecosystems, sustainable agriculture, sustainable habitat, a 'green India' mission focused on the forest sector, and a strategic knowledge mission.

As this list suggests, the scope of the Plan is sprawling, which itself has aroused some criticism. One critique dubs it neither a vision nor a plan.<sup>42</sup> Another notes that there is no commitment to equity, although this position informs India's international stance.<sup>43</sup> Moreover, other than the co-benefits approach, there is no coherent strategy, either conceptual or in terms of overarching target-setting, that ties together the missions. Some of these lacunae are made up in individual missions, but the performance across missions also varies considerably. More tightly defined missions, such as those on energy efficiency and solar, have come up with their plans first and begun implementation. Other missions, that involve large areas of development policy such as water and agriculture, have taken longer to be approved and implemented.

Nonetheless, individual missions, notably the solar and energy efficiency mission, are likely to substantially shape the Indian policy and energy landscape. Using an innovative reverse-auction method allowing companies to bid for the minimum subsidy they would accept to provide solar power, the price of solar power has dropped by over half over the course of the three year program.<sup>44</sup> While it is unclear whether this is a sustainable trend, there is little doubt that the mission has re-shaped incentives for renewable energy development in India. Similarly, the energy efficiency mission has introduced targets for energy efficiency improvements across a wide range of industries, accompanied by a scheme for trading energy efficiency certificates as a way of bringing down the cost of those improvements.<sup>45</sup> Both missions have had their share of critics. The solar mission has been criticized for under-playing rural electrification, and for not adequately considering the sustainability of the subsidy.<sup>46</sup> The energy efficiency mission has been criticized for not adequately considering simpler regulatory measures rather than the relatively complex market based energy savings certificate approach.<sup>43</sup> Nonetheless, few would doubt that at least in these two cases, the missions have stimulated both action and debate in a way that would not have occurred in their absence. Similar conclusions cannot be drawn, as of end 2012, about many of the other missions, which are larger, more diffuse, and have yet to move to substantial

implementation. Since 2010, the central government has also requested states to develop State Action Plans on Climate Change (SAPCC). The SAPCCs are intended to achieve some coherence across states in design and implementation of climate measures, and have also been created in recognition of state jurisdiction over several areas within the NAPCC, particularly those related to adaptation.<sup>33</sup> Initial indications from these SAPCCs, which are a work in progress suggest that there will be considerable conceptual and implementation challenges to these plans. As in other countries, the plans will have to address the interlinkage between development issues and their climate aspects, a familiar challenge of mainstreaming climate change into development practice. Pragmatically, issues tied to India's federal structure and to practical questions of provision of financing are likely to pose implementation challenges. For example, urban habitats are under the control of states and local authorities, but there is already a far reaching central government scheme intended to steer future urban development. Climate change will have to be integrated as an objective within an already littered institutional landscape.

At a macro level, in the build up to Copenhagen, the Government of India also introduced a pledge to reduce the emission intensity of its economy by 20-25% from 2005 levels by 2020.<sup>47</sup> Notably, this pledge follows by more than a year the establishment of the NAPCC. In order to design a process toward meeting that pledge, the Government has also established an 'Expert Group on Low Carbon Strategies for Inclusive Growth' under the auspices of its Planning Commission. The group was tasked with providing recommendations for inclusion in India's 12<sup>th</sup> five year plan toward low carbon growth that meets the Copenhagen pledge. Notably, the group is also explicitly tasked with considering how growth can be made more inclusive. While the final report is awaited, the group has submitted an interim report that summarizes broad future directions for various emissions sectors under 'determined' and 'aggressive' scenarios.<sup>48</sup> While this effort clearly needs to build on the NAPCC and the subsequent missions, there is no explicit link between these processes.

While it is preliminary to comment on the effectiveness of all these approaches, it is increasingly apparent that translating low carbon development into action in India will pose a considerable governance challenge. The trend so far has been a largely top-down policy effort, albeit with a progressive decentralization of policy making from the national to the state. There are also, however, separate state initiatives, such as that of the state of Gujarat which established a Department of Climate Change prior to formulation of state action plans<sup>25</sup> and which has launched initiatives on solar power<sup>17, 49, 50</sup> In addition, the proliferation of policy processes suggests the need for coordination at multiple levels of government.

## **CONCLUSION**

Indian climate politics is a story of remarkable consistency. India was instrumental in shaping the equity frame in global climate negotiations, and this, in turn, was developed through a critique of global thinking led by non-governmental organizations. For nearly two decades, this construction has led to a reduction of Indian climate politics to a question of geopolitical positioning and strategy alone; climate policy has been divorced from development policy.

As the perspectives of different sectors of Indian society reported here suggest, this frame has considerable continued currency. While there are increasingly voices that call for India to take on a more proactive role in global climate negotiations and to more aggressively pursue domestic actions, the equity frame continues to be the larger conceptual umbrella to which these positions have reference.

In a substantial shift, however, the articulation of a co-benefits led approach to climate change has unlocked a path to deeper engagement with climate mitigation in a manner that does not challenge the equity frame. Pursuit of energy security has proved to be a particularly powerful driver of domestic action, leading to policy measures around energy efficiency and renewable energy, with associated climate mitigation co-benefits. So far, however, co-benefits remains an articulation that governs domestic policy, while the equity frame continues to guide India's international negotiations stance.

The emergence of a field of domestic climate policy is likely to introduce significant coordination and governance challenges to Indian climate policy. India has begun grappling with how to mainstream climate adaptation into sectoral policies such as water and agriculture. Approaches that were long dormant, such as energy efficiency, have got a stimulus through the potent combination of energy security and climate mitigation. However, this embryonic integration also introduces institutional complexity and new politics. Institutionally, climate policy must now be interwoven into the complex governance apparatus of India's federal system. Politically, climate change has begun being harnessed as a rhetorical tool to other long-standing political issues such as construction of nuclear power and large dams. Nonetheless, the growing complexity is unavoidable and, indeed, to be welcomed, as it signals deeper engagement with the full range and implication of climate change concerns in India.

## **Acknowledgements**

This work is supported by a grant from the Oak Foundation, which supports the work of the Climate Initiative at the Centre for Policy Research.

## References

1. Agarwal A, Narain S. Global Warming in an Unequal World: A Case of Environmental Colonialism. 1991, p. 1.
2. Jakobsen S. India's Position on Climate Change from Rio to Kyoto: A Policy Analysis. 1998, Pages 1-47, p. 39.
3. Govind Rajan M. *India and the North-South Politics of Global Environmental Issues*. Delhi: Oxford University Press; 1997, p. 120.
4. Pachauri RK, Gupta S, Mehra M. A reappraisal of WRI's estimates of greenhouse of gas emissions. *Natural Resources Forum* 1992, 16:33–38.
5. Dasgupta C. Present at the Creation: The Making of the Framework Convention on Climate Change. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 89-98, p. 89.
6. Sengupta S. International Climate Negotiations and India's Role. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 101-117, p. 106.
7. Dubash NK. Introduction. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. New Delhi: Oxford University Press; 2011, 1-27.
8. Pulver S. Corporate Responses to Climate Change in India. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. New Delhi: Oxford University Press; 2011, 254-265.
9. Atteridge A. Shifting Sands: India's New Approach to the Politics of Climate Change. 2010, Page 4.
10. Biermann F. Big science, small impacts -in the South? The influence of global environmental assessments on expert communities in India *Global Environmental Change* 2001, 11:13.
11. Kandlikar M, Sagar A. Climate change research and analysis in India: an integrated assessment of a South—North divide *Global Environmental Change* 1999, 9:20, p. 131.
12. Lele S. Climate Change and the Indian Environmental Movement. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 208-217.
13. Dubash NK. Inconvenient truths produce hard realities: notes from Bali. *Economic And Political Weekly* 2007, 42:5.



14. Rajamani L. The Cancun Climate Agreements: Reading The Text, Subtext and Tea Leaves. *International and Comparative Law Quarterly*. 2011, 60:20.
15. Dubash NK. Climate of Mistrust. *Economic and Political Weekly*. 2009, 44:4.
16. Raghunandan D. Durban Platform: Kyoto Negotiations Redux *Economic & Political Weekly* 2011, 46.
17. Huq S. Views from the outside: international perspectives on India's climate positions: Bangladesh. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 180-194.
18. Raghunandan D. India's Official Position: A Critical View based on Science. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. New Delhi: Oxford University Press; 2011, 170-179.
19. Patodia Rastogi N. Winds of Change: India's Emerging Climate Strategy. *The International Spectator* 2011, 46:15.
20. Atteridge A, Shrivastava M, Pahuja N, Upadhyay H. Climate Policy in India: What Shapes International, National and State Policy? *AMBIO: A Journal of the Human Environment* 2012, 41:68-77.
21. Prabhu S. Climate Change Debates in the Indian Parliament In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 230-245.
22. Boykoff M. Indian Media Representations of Climate Change in a Threatened Journalistic Ecosystem. *Climate Change* 2010, 99.
23. Jogesh A. A Change in Climate? Trends in Climate Change Reportage in the Indian Print Media. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 266-286.
24. Dubash NK. Environmentalism in the Age of Climate Change. *Seminar* 2009, 601.
25. Fisher S. Policy storylines in Indian climate politics: opening new political spaces? *Environment and Planning C: Government and Policy*. 2012, 30:109-127.
26. Chakravarty S, Ramana MV. Hiding behind the Poor Debate: A Synthetic Overview. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 218-229.
27. Parikh J, Panda M, Ganesh Kumar A, Singh V. CO2 Emissions Structure of Indian Economy. *Energy* 2009, 34:1024.

28. Bidwai P. *An India That Can Say Yes: A Climate-Responsible Development Agenda for Copenhagen and Beyond*. New Delhi: Heinrich Boll Stiftung; 2009.
29. Dubash NK. *Toward a Progressive Indian and Global Climate Politics*. 2009. Available at: [http://www.cprindia.org/sites/default/files/1253785461-CPR%20WP%202009-1\\_Dubash.pdf](http://www.cprindia.org/sites/default/files/1253785461-CPR%20WP%202009-1_Dubash.pdf).
30. Singh Rana R, Bhagat RM, Kalia V, Lal H. The impact of climate change on a shift of the apple belt in Himachal Pradesh. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 51-62.
31. Byravan S, Chella Rajan S, Rangarajan R. Sea Level Rise: Impact on Major Infrastructure, Ecosystems and Land Along the Tamil Nadu Coast. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. 1 ed. New Delhi: Oxford University Press; 2011, 41-50.
32. Indian Network for Climate Change Assessment MoEF, Government of India. *Climate Change and India: A 4X4 Assessment - A sectoral and regional analysis for 2030s*. 2010, Page 164. Available at: <http://moef.nic.in/downloads/public-information/fin-rpt-incca.pdf>.
33. Ministry of Environment and Forests. *A Framework for preparation of the State Level Action Plans on Climate Change 2010*, Page 12.
34. Gosain AK, Rao S, Arora A. Climate Change Impact Assessment of Water Resources of India. *Current Science* 2011, 101:16.
35. Dubash NK. From Norm Taker to Norm Maker? Indian Energy Governance in Global Context. *Global Policy* 2011, 2:14.
36. Mukherjee P. India And Global Challenges: Climate Change And Energy Security. In: *Speech at the The Asia Society*. New York; 2008.
37. Prime Minister's Council on Climate Change. *National Action Plan on Climate Change*. 2008. Available at: [http://pmindia.nic.in/climate\\_change.htm](http://pmindia.nic.in/climate_change.htm).
38. Dubash NK. Climate politics in India: three narratives. In: Dubash NK, ed. *Handbook of Climate Change and India: Development, Politics and Governance*. New Delhi: Oxford University Press; 2011, 197-207.
39. Vihma A. India and the Global Climate Governance: Between Principles and Pragmatism. *The Journal of Environment & Development*. 2011.
40. Ministry of New and Renewable Energy, Government of India. *Jawaharlal Nehru National Solar Mission: Towards Building Solar India*. 2009.

41. Ministry of Water Resources, Government of India. National Water Mission under National Action Plan on Climate Change: Comprehensive Mission Document. 2009. Vol. 1, Page 61. Available at: <http://india.gov.in/allimpfrms/alldocs/15658.pdf>.
42. Economic & Political Weekly. Climate Change: Not Vision, Not Plan. *Economic & Political Weekly* 2008, 43:2.
43. Bidwai P. *The Politics of Climate Change and the Global Crisis: Mortgaging Our Future*. New Delhi: Orient BlackSwan; 2011.
44. Ramesh M. Solar Mission: Bidders quote historic low prices. *The Hindu Business Line*. 2011.
45. Ministry of Power, Government of India. Notification dated 30 March 2012 (on the Perform Achieve and Trade Scheme). 2012.
46. Deshmukh R, Gambhir A, Sant G. Need to Realign India's National Solar Mission. *Economic & Political Weekly* 2010, 45:10.
47. Ministry of Environment & Forests, Government of India. Letter from Joint Secretary, Ministry of Environment & Forests to Executive Secretary, United Nations Framework Convention on Climate Change. 2010. Available at: [http://unfccc.int/files/meetings/cop\\_15/copenhagen\\_accord/application/pdf/indiacphaccord\\_app2.pdf](http://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/indiacphaccord_app2.pdf).
48. Government of India PC. Interim Report of the Expert Group on Low Carbon Strategies for Inclusive Growth. 2011, Page 114. Available at: [http://planningcommission.nic.in/reports/genrep/Inter\\_Exp.pdf](http://planningcommission.nic.in/reports/genrep/Inter_Exp.pdf).
49. Dasgupta M. Tapping solar power, avoiding water wastage. *The Hindu* 2012. Available at: [www.thehindu.com/news/states/other-states/article3353891.ece](http://www.thehindu.com/news/states/other-states/article3353891.ece).
50. Bhatnagar J. Gujarat's solar flair. *The Financial Express*. 2012. Available at: <http://www.financialexpress.com/news/gujarats-solar-flair/943639/3>.