

**Paper 2**  
**OPTIMAL SCENARIOS FOR SUSTAINABLE DEVELOPMENT**  
**UNDER EQUITY-BASED APPROACH**

Jayashree Vivekanandan, Deepti Mahajan, and Sanjay Vashist  
TERI, India

**Executive Summary**

In the build-up to Copenhagen 2009, the issue of equity in climate negotiations and the adaptation and mitigation mechanisms devised to address climate change continues to create fault lines. Principles of formal ethical theory when applied to the debate around equity issues have been used to offer the rational basis for specific positions. Since countries have differentially contributed to the stock of carbon emissions, and are not uniformly capable of contributing to mitigation and adaptation measures, the notion of “common but differentiated responsibility” has gained ground. With climate concerns and energy security concerns being closely tied, states’ positions at the climate negotiations are constrained by economic growth and energy use imperatives. The developing countries support the transition to equal per capita emission rights while embarking on their growth trajectories and simultaneously making consistent efforts to reduce carbon-dependence, and calling on the developed world to reduce their per capita levels.

While a North-South divide is clear in the debate, increasingly the developed countries are recognizing the need to address the issue, and rise above immediate self-interest. The equity principle enters the climate change discourse chiefly on the issue of how the costs of managing its adverse impacts should be distributed. Clearly, while the international debates on reduction targets continues and needs to be furthered on an equitable basis, priority needs to be given to building the capabilities of vulnerable countries and communities. An ethical approach would entail a focus on world sustainable development and thus the willingness on the part of states to look beyond national frames of reference and recognize the inter-linkages between the local, national and global realms. The course of development that has been followed in the last centuries of human development consumed such a great fraction of the carbon budget that today the world is faced with the task of allocating an inadequate remainder. It is significant that any mechanism that is evolved to address this issue is rooted in equity and justice.

**Introduction**

There was an increasing recognition of the fact in the concluding years of the last century that climate change impacts resulting from unsustainable lifestyle of human beings need to be addressed in a framework of international cooperation. The fact that the countries in the international system articulate their interests from different vantage positions on the spectrum of growth, development, and capabilities has clearly led to the emergence of fault lines. These fault lines cannot be resolved without factoring in ‘equity’ and ‘equitable rights’ (to the use of global environmental resources and development) into the discourse on climate change.

A number of issues integral to the climate change debate have a pronounced ethical dimension that needs to be urgently discussed. Despite the fact that concerns related to burden-sharing and access to resources have a direct impact on the long-term prospects of societies’ ability to establish conditions of well-being, the issue of ethics has not been sufficiently discussed in the research literature.<sup>1</sup> The issues paper examines why reflection on ethics is imperative to the debate before looking at the key issues that the ethical dimension entails.

## Ethics, equity, and the climate debate

The ethical aspect assumes significance in discussions of climate change in myriad ways. The effects brought on by climate change have serious repercussions in terms of the vulnerability and survival of different societies and biospheres. Levels of vulnerability vary according to the nature and extent of dependence on resources that are climate sensitive, as well as their adaptive capacity.<sup>2</sup> Greater reliance on such resources exposes dependent communities to higher risks. A self-help approach by the less vulnerable societies to address their immediate concerns would be an ineffective approach. For a successful strategy to work, it is important for societies to see climate-change-induced vulnerability as an ethical concern for which they should be willing to go beyond their immediate self-interest. Appreciating the webs of interconnectedness would lend legitimacy and rigour to international initiatives, eliciting the cooperation of both the developed and developing countries.

There are several critical ethical issues involved in the climate change debate, some of which include the following.

- a) Determining who exercises the right to pollute within the permitted emission levels.
- b) Deciding the levels of warming that we can withstand would in turn impinge on the prospects for survival of different societies.
- c) States and societies can no longer restrain themselves from taking necessary steps on the basis of lack of consensual action or the availability of cleaner technologies.<sup>3</sup>

The climate negotiations under the framework of the UNFCCC (United Nations Framework Convention on Climate Change) are marked by two starkly different perspectives that reflect the North–South divide. In *Equity in Climate Change: the great divide*, Benito Muller writes that the conflict amongst developed and developing countries arises from a basic difference in the perception of climate change itself. In the industrialized North, the ‘ecological view’ of the issue holds – climate change is perceived as a problem related to pollution of the environment or harm to nature, and climate change impacts are regarded as ‘lifestyle-threatening’ and are largely self-inflicted. In the South, climate change is seen as more of a human welfare problem wherein the subject of the harm is the human populace. Climate change impacts here are ‘life-threatening’ and largely ‘other-inflicted’.<sup>4</sup> It must be recognized that, in the developed world, there is an increasing awareness of the spread and intensity of catastrophic climate change impacts, and this awareness is reflected in many countries’ changing stance, and inclination to work in a framework marked by equity.

Principles of formal ethical theory when applied to the debate around equity issues offer the rational basis for specific positions. There are several ethical approaches on how the global commons should be divided, all of which can be broadly accommodated within what Michael Grubb calls the two ‘focal allocation approaches’.<sup>5</sup> The per capita entitlements approach is based on the egalitarian distribution of the global commons within which international justice positions of causal responsibility such as the polluter pays principle comes in. On the other hand, the status quo position approaches the issue of burden sharing without basing it on either the notion of global commons or historical inequalities, and within this would fall the willingness to pay principle. Broadly speaking, the per capita entitlements approach is espoused by the developing world, which has attributed centrality to the principle of historical responsibility and ‘natural debt’ in the allocation of emission targets. In contrast, the status quo approach finds support in the North, which has sought to reduce the imposition of huge burdens on their current production and consumption processes. While developing countries may argue that the developed world is responsible for the current level of emissions and is therefore liable to take corrective measures, another school of thought submits that past emissions should not imply guilt.

It is clearly difficult to arrive at a formulation of equity that serves well the interests of a large number of developing and developed countries. Three main issues with ethical implications have muddied the waters and caused deep differences within international negotiations.<sup>6</sup> First, the process involved in arriving at global welfare is problematic, in that the comparison and aggregation of national impacts is difficult to arrive at. Utilitarian philosophy tends to seek the maximization of the total aggregate over individual welfare, a line of reasoning that the Rawlsian understanding rejects in favour of one that attributes worth to the most vulnerable sections. Second, the 'non-market impacts' make the process of evaluation fraught with ethical concerns. The cost-benefit calculation that mitigation actions entail is criticized for the commodification of human life, especially since it attributes less worth to lives in the developing world as compared to the developed countries.

What makes any absolute analysis unviable is the fact that the costs of human inaction in a particular area are paid in another part of the world. Finally, the debate on intergenerational equity foregrounds concerns about the extent to which the future generations should bear catastrophic impacts and the weight of corrective action. The intensity and frequency of climate change impacts are expected to increase in the future, making future generations considerably more vulnerable than the current generation. The different time scales, which climate change is seen as impinging on, are thus complicated by the question of how the costs should be distributed between the present and future generations.

The equity principle enters the climate change discourse chiefly on the issue of how the costs of managing its adverse impacts should be distributed. The equal per capita emissions principle is espoused by the developing countries that argue that the process and outcome of any negotiations on climate change should have their basis in equity. The per capita emissions argument states that while all individuals are entitled to equal emission quotas, countries that are major emitters of GHGs (greenhouse gases) should compensate the developing world, which is contributing less to climatic degradation. Also, the developing countries argue that since the industrialized, developed countries have historically been larger emitters, developing countries should not be expected to share equal responsibility of addressing climate change. Both inter-country equality and inter-generational equality thus need to be ensured in the process. This implies that GHG emission rights are not hereditary, which would have allowed future generations to benefit from growth and wealth accruing from higher emissions. Given geological and socio-economic factors, the developing world would be doubly vulnerable to the impact of climate change. In such a scenario, compensatory measures by way of equal emission rights would enable countries with low emission levels to develop further albeit with cleaner technologies to benefit from.<sup>7</sup>

Debating on the ethical dimension of climate change compels us to rethink the nature of human security and conflict. The conventional focus of human security is the individual although factors impinging on it are extraneous to not just the individual, but also to communities and societies to which she belongs. Furthermore, climate change, by inducing shifts in the management of energy resources that affect choices and access to sources, induces conflict among states.<sup>8</sup> The debate on ethics also compels us to situate the climate change debate within the larger socio-economic context, as the economically disadvantaged sections are most vulnerable to the effects of climate change. According to the AIACC (Assessment of Impacts and Adaptations to Climate Change), pressures due to other crises such as economic decline and governance failure further compound the impact of climate change.<sup>9</sup> Ethics and economics intersect at another crucial juncture in that the ability of states to address ethical concerns such as protecting livelihoods hinges on their economic capacity to take the necessary measures.

## Balancing divergent interests

The key issue on which countries differ is who needs to act and how—a concern that in turn focuses attention on the distributional aspect of responsibility. The vast difference in the severity of climate change impacts across geographical boundaries, coupled with the economic and social costs that countries will need to bear, implies that the threshold level for climate change to be perceived as an imminent problem varies across countries/regions, with small island nations and LDCs (least developed countries) being the most vulnerable.<sup>10</sup> Given that the issue is integrally linked to the environmental fallouts of fundamental economic activities like land use and energy consumption, corrective action would entail major shifts in production and consumption processes.<sup>11</sup> Critics argue that if pinning responsibility entails risks being imposed on the developing countries by the developed world, then it is in itself a credible cause ‘to prevent GHG-induced climate change, because if it happens, present inequalities would be irresponsibly increased’.<sup>12</sup> For instance, low-lying areas are vulnerable not just because of their coastal location, but also because of their reliance on climate-sensitive natural resources.

As climate concerns and energy security concerns are closely tied, states’ positions at the climate negotiations are constrained by economic growth and energy use imperatives in the domestic policy arena. The developing countries have articulated their unwillingness to take up targets for GHG emissions reductions. Since the developed countries have been the worst emitters, and now stand in a position to bear the expenses for mitigation/adaptation, they have called on them to take the onus for emissions reduction. They argue that diversion of valuable resources to mitigation and adaptation strategies would adversely impact growth rates at crucial periods of development in the developing world.<sup>13</sup> Also, state capacity to respond to challenges depends on the institutional and social structures that exist. Countries with broad social consensus and robust institutions are in a position to extend protection to the vulnerable sections, unlike other states where governance and implementation structures protecting the disadvantaged are fragile or absent.<sup>14</sup>

Since building of capacities for carbon-free growth is not a priority area in the developing countries, it is expected that future mitigation costs will greatly hurt developing countries’ interests, further widening international inequities. Some significant aspects of the Kyoto Protocol have involved the balancing of different imperatives involving trade-offs between equity and other institutional interests. For instance, the possibilities offered by trading as part of the JI (joint implementation) and CDM (clean development mechanism) may not be completely in consonance with the idea of equity, yet if efforts are made for their effective implementation that focuses on assisting non-Annex 1 countries’ transition to non-carbon economies, it would allow movement towards the goal of sustainable development.<sup>15</sup>

While the international debates on reduction targets continues, the focus on determination of, and meeting of, targets has subsumed the larger issues of sustainable development, which are equally, if not more, important than the need to cut GHG emissions. Priority needs to be given to building the capabilities of countries and communities, which are at greater risk and disadvantage and are slated to see the impact of climate change in the near future.<sup>16</sup> An ethical approach would entail the willingness on the part of states to look beyond national frames of reference and recognize the inter-linkages between the local, national, and global realms.

Clearly, the issue of climate change and sustainable development are intrinsically linked, and the per capita emissions position, in particular, holds significant implications for sustainable development. The sustainable use of available resources is central to efficient adaptation and mitigation strategies. Indeed, ensuring equitable development among different regions would be the most effective strategy to combat vulnerabilities resulting from climate change. Efforts to combat climate change such as better disaster management, especially in the form

of early warning systems, drought relief, and flood management, as well as the development of infrastructure in climate-sensitive regions like the coastal areas would be some of the issue areas that hold the key to sustainable development. In this regard, sector-specific sustainable practices would also be effective in tackling climate change. For instance, the adoption of renewable energy resources for power generation and improving energy efficiency in the industrial sector are certain initiatives that address both climate change and sustainable development concerns. Furthermore, policy measures like rural watershed development and rainwater harvesting, which reduce agricultural dependence on the monsoons, are innovative climate-friendly adaptation strategies. An integrated approach to sustainable development in sectors such as communications, transport, and power would bring incremental benefits in the area of climate change adaptation.<sup>17</sup> At the international level, an integrated approach would translate into the policy of common but differentiated responsibilities that take into consideration different national capabilities. In furtherance of this policy, developed countries would extend assistance to the developing countries to enhance their adaptive capacity and help them to cope with climate change impacts. The extent to which the pursuit of national developmental goals is brought in line with adaptation strategies would determine whether climate change policies are proving to be environmentally sustainable or not.

## **Conclusion**

Fifteen per cent of the world's population living in the roughly 40 high-income countries uses about half the world's energy, producing more than 55% of the world's CO<sub>2</sub> (carbon dioxide), and consumes about half the world's goods and services. Further, as they developed into this current resource-intensive state, the world's wealthy utilized such a great a fraction of the carbon budget that today we are faced with the grim task of allocating an inadequate remainder. A global climate regime with any promise of success must explicitly embrace the right to sustainable human development. This right must be declared and preserved, despite the dire pressures of the climate crisis.<sup>18</sup> Clearly, if there is a danger associated with increases in GHGs above the natural baseline, the right to add to that stock should be allocated uniformly among all those in the world. Thus there is a need to design or evolve an equity-based future climate change regime that stabilizes GHG emissions globally in a cooperative and just framework.

While meeting emission reduction targets is crucial, it also needs to be ensured that the mechanisms established and methodologies followed to meet these targets do not compromise on the tenets of equity, and are non-exploitative and sustainable. What also needs to be recognized is that the global climate mitigation and adaptation actions need to be fortified with an emphasis on capacity building for sustainable development in all parts of the world. The trajectories of development followed today and in the future, in both the developing and developed countries, must be charted to address the problem of climate change, and not contribute to it.

Equal emissions rights on per capita basis means right to emit within sustainable limit to ensure social and economic growth of poor. The rich at the same time should cut down the excess emissions resulting due to unsustainable lifestyle. The surplus of reduction in carbon emissions by an individual, industry or sector should be converted to incentives or vice versa, and tax should be imposed on those who contribute to carbon footprint, in order to benefit those who follow low carbon pathways. This will benefit primarily poor citizens in a country by providing necessary financial resources for economic growth. The arguments also justify balancing divergent interests in a society comprising various income categories and responsibilities. However, in order to introduce the concept, it can also be assumed that the rights will be distributed based on ethics and equity principles, as applicable internationally, and on the fact that the principle of common but differentiated responsibilities will be considered in national context.

## Endnotes

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<sup>1</sup> Ethics, particularly in the context of climate change can be defined as 'the domain of inquiry that rigorously examines claims about what is right or wrong, obligatory or non-obligatory, or when responsibility attaches to human actions', *Report on Bali Workshop (COP13)*, available at: <http://climateethics.org/?cat=3>.

<sup>2</sup> Barnett J and Adger N. 2007. *Climate change, human security and violent conflict*, Political Geography 26: 640.

<sup>3</sup> Don Brown's talk on Moral and Ethical Dimensions of Climate Change, available at: <http://orangehues.com/blog/2007/06/ethics-of-climate-change-don-browns.html>.

<sup>4</sup> Muller B. 2002. *Equity in Climate Change: the great divide*. Oxford: Oxford Institute for Energy Studies.

<sup>5</sup> Grubb M. 1995. *Seeking fair weather: ethics and the international debate on climate change*, International Affairs 71 (3): 494–495.

<sup>6</sup> Ibid. 470–473.

<sup>7</sup> Ghosh P. 1993, *Structuring the equity issue in climate change*. In *The Climate Change Agenda: an Indian perspective*, pp. 267–274, edited by A N Achanta. New Delhi: The Energy and Resources Institute.

<sup>8</sup> Barnett J and Adger N. 2007. *Climate change, human security and violent conflict*, Political Geography 26: 639–655; Grubb M. 1995. *Seeking fair weather: ethics and the international debate on climate change*, International Affairs 71 (3): 468–469.

<sup>9</sup> Ibid. 648.

<sup>10</sup> Ghosh P. 2008. Paper presented at the DSDS Special Event 'Lifestyles, Energy Security and Climate,' New Delhi, 8 February 2008, organized by The Energy and Resources Institute, New Delhi.

<sup>11</sup> Grubb M. 1995. *Seeking fair weather: ethics and the international debate on climate change*. International Affairs 71 (3): 463–496.

<sup>12</sup> Meyer-Abich cited in Grubb M. 1995. *Seeking fair weather: ethics and the international debate on climate change*. International Affairs 71 (3): 463–496.

<sup>13</sup> Government estimates suggest that it could cost India \$2.53 trillion in investments to reduce GHG emissions by 9.7% by 2036, if 1990 emissions levels are taken as the baseline, Ghosh cited in Sethi N. 2007. *Emission cut to cost India \$2.5 trillion*, The Times of India, 16 October.

<sup>14</sup> Barnett J and Adger N. 2007. *Climate change, human security and violent conflict*, Political Geography 26: 639–655; Grubb M. 1995. *Seeking fair weather: ethics and the international debate on climate change*. International Affairs 71 (3): 468–469.

<sup>15</sup> Ott H and Sachs W. 2002. *The ethics of international emissions trading*. In *Ethics, Equity, and International Negotiations on Climate Change*, edited by L Pinguelli-Rosa and M Munasinghe. Cheltenham, Massachusetts: Edward Elgar.

<sup>16</sup> Najam A, Huq S, and Sokona Y. 2003. *Climate negotiations beyond Kyoto: developing countries concerns and interests*, Climate Policy 3: 221–231.

<sup>17</sup> Shukla P R, Sharma S K, Garg A, Bhattacharya S, Ravindranath N H. 2003. *Climate change vulnerability assessment and adaptation: the context*. In *Climate Change and India: Vulnerability Assessment and Adaptation*, pp. 14–15, edited by P R Shukla et al. Hyderabad: Universities Press.

<sup>18</sup> *The Greenhouse Development Rights Framework*, Ecoequity, Christian Aid and Henrich Boll Foundation.