

Winds of Change: India's Emerging Climate Strategy

Namrata Patodia Rastogi

India's approach to climate change has shifted dramatically in the span of a few years. Not only has India developed a comprehensive climate change program domestically, it has adopted a new stance in the international negotiations that has earned it the reputation of being a 'deal maker'. This dramatic, and to many unexpected, shift in India's climate change strategy can be understood if seen in the context of India's economic and development aspirations and the changes occurring in the larger geopolitical landscape. Climate change, due to its multi-faceted nature, cuts across a spectrum of issues and India can benefit both domestically and internationally by addressing it. India's desire to play a strategically important role in a new global order as well as deal with domestically critical issues like energy security and energy access, all coalesce with the climate issue. By engaging proactively on climate change, India may be able to advance all of these objectives at once. To succeed, it must demonstrate that action on climate change does not come at the expense of economic growth or development goals, and that these can, in reality, go hand in hand.

The Indian climate: emissions, economy and development

As an emerging developing economy, climate change presents India with a unique and daunting challenge. While in absolute terms India's contribution to anthropogenic greenhouse gas (GHG) emissions is small compared to the other larger emitters (only 5 percent compared to the largest emitters, China and the United States, which are responsible for about 20 percent each), it still ranks fourth in terms of GHG emissions globally. Projections show that India's GHG emissions, along with China's, are expected to experience the highest growth compared to other countries in the next few decades. India's GHG emissions are projected to increase by about 47 percent between now and 2020. India ranks low in

Namrata Patodia Rastogi is the International Fellow at the Pew Center on Global Climate Change, Arlington, VA, USA. Email: rastogin@pewclimate.org. The author would like to thank Elliot Diring of the Pew Center for his helpful comments.

terms of per capita emissions, only about a tenth of the US and about a third of the world average.¹

India is the fourth largest economy in the world² and is expected to become the fastest growing major economy in the next few decades.³ To meet its economic and development goals, the Indian government has targeted economic growth rates of about 8-10 percent a year for the next two decades.⁴ This will require the primary energy supply to increase three to four times and electricity generation capacity to increase five to six times.⁵ Coal and oil, both fossil fuels, account for about 75 percent of India's energy consumption and approximately 70 percent of electricity is generated from coal-fired power plants.⁶ Coal is bound to remain the mainstay of the Indian economy. Recently, India has been successful in maintaining a steady decrease in its emissions intensity, an indicator of the decoupling of its economy and emissions, and this trend is expected to continue.

In spite of its rapidly growing economy, India has immense developmental challenges to grapple with. About 40 percent of its population lies below the poverty line⁷ and about 400 million people do not have access to electricity.⁸ Its population of over 1.1 billion people is second only to that of China, and is expected to become the world's largest by 2025.⁹

India is also a country that is likely to suffer hugely from the impact of climate change. The glacier-fed Himalayan region is one of the main freshwater sources for the Gangetic basin, on which approximately half a million people are dependent for their livelihood. In the longer-term, melting glaciers and the resulting water stress could have a devastating impact on that region.¹⁰ Furthermore, hundreds of millions of people live in coastal India and climate change impacts like sea level rise could have a crippling effect on them.¹¹ Lower crop yields, another consequence of climate change, can affect India's agriculture-dependent economy.

¹ Based on author's calculations. Data from International Energy Agency, *CO₂ Emissions from Fuel Combustion* and *World Energy Outlook 2010*; and USEPA, *Global Non-CO₂ Greenhouse Gas Emissions*. Data does not include emissions from land-use, land-use change and forestry.

² On a GDP PPP basis for the year 2010. IMF, *World Economic Outlook 2010*, <http://www.imf.org/external/pubs/ft/weo/2010/02/weodata/index.aspx>

³ Ahya and Gupta, *New Tigers of Asia*, 6; and, Standard Chartered Bank, *The Super-Cycle Report*, 23.

⁴ Government of India, *Integrated Energy Policy*.

⁵ *Ibid.*

⁶ Energy Information Administration, "Country Analysis Briefs: India".

⁷ World Bank, "New Global Poverty Estimates – What it Means for India", <http://go.worldbank.org/51QB3OCFU0>

⁸ World Bank, "India's Power Sector", <http://go.worldbank.org/HQBS4S8190>

⁹ US Census Bureau, "China's Population to Peak at 1.4 Billion Around 2026", 15 December 2009, http://www.census.gov/newsroom/releases/archives/international_population/cb09-191.html

¹⁰ Malone, *Changing Glaciers and Hydrology in Asia*, 3.

¹¹ J. Ramesh, "Press Conference at COP 16". UNFCCC COP 16, 7 December 2010, http://webcast.cc2010.mx/webmedia_en.html?id=187

Sticking to principles: India's climate strategy for the last two decades

India's positioning in the climate change negotiations has largely mirrored its traditional ideological and principle-based approach to multilateralism. This approach, crafted by its first Prime Minister Jawaharlal Nehru, is based on the *Panchsheel* principles of equality, mutual respect, mutual non-interference and non-aggression, and peaceful co-existence. India has often taken on the role of leader of the Third World and actively promoted the principle of 'universalism of the weak'. Its role as a founding member of the Non-Aligned Movement (NAM) as well as in the trade liberalisation talks of today are evidence of this. While the NAM was based on the *Panchsheel* principles, India's hard-line positioning at the 2008 World Trade Organisation (WTO) negotiations represented the voice of the world's poor.

As a result, for most of the last two decades, India's unwavering position within the multilateral climate change negotiations has been primarily based on two principles: common but differentiated responsibility and the per capita principle.

Enshrined in the United Nations Framework Convention of Climate Change (UNFCCC), the principle of "common but differentiated responsibility" has been at the core of India's strategy at the multilateral negotiations.¹² The developing world, India included, has argued that the historical responsibility to deal with climate change lies with the North since they are the creators of the problem and that they must take on a leadership role in addressing climate change. The priority of the southern nations should be to meet their development objectives and any action to reduce emissions should be voluntary. Indian negotiators were instrumental in the inclusion of this principle in the Convention and through the years ensured that it remained the foundation for India's negotiating position. The firewall created through this principle between developed and developing countries is the basis of India's long-held position that shields it from undertaking any meaningful action to reduce emissions.

One of the strongest proponents of differentiation between the developed and developing worlds and the per capital principle in the climate context has been the Center for Science and Environment (CSE), a non-governmental organisation based in New Delhi. Their highly influential report published in 1991,¹³ addressed the question of "how should this global common . . . be shared amongst the people of the world". The report argued that this should be done based on the per capita principle. This principle essentially recognises the right of all humans to share the atmospheric space equally and allocates carbon budgets to countries based on their per capita emissions (emissions per unit population). Indian delegates have, since then, framed their approach to climate change on this principle and consistently supported the per capita convergence model within the international negotiations.

¹² Rajan, *Global Environmental Politics*; Rajamani, "India's Negotiating Position" and "India and Climate Change".

¹³ Agarwal and Narain, *Global Warming in an Unequal World*.

India's domestic approach to climate change has been influenced largely by its multilateral stance. Historically, domestic policies *per se* did not exist and climate change was addressed only in an *ad hoc* manner, primarily through energy or forestry policies in which climate was never the central focus.

Moving pieces: an emerging new approach to climate

The National Action Plan

The release of the National Action Plan on Climate Change (NAPCC)¹⁴ by Prime Minister Manmohan Singh in 2008 marked a turning point in India's engagement on the climate issue. Along with prioritising India's development imperatives, the NAPCC, for the first time, established a concrete framework to address climate in the domestic context.

Consisting of eight national missions,¹⁵ the NAPCC is a package of measures addressing both mitigation and adaptation. Even though some of the missions, like the Green India Mission, are based on pre-existing policies, the Solar Mission, for one, demonstrates new direction by the government to access a previously untapped energy source. Emphasizing the importance of moving from a fossil fuels-based economy to one based on non-fossil fuels and renewable sources of energy,¹⁶ the Solar Mission sets an ambitious goal of generating 20 GW of solar energy by 2022, a several thousand-fold increase from current levels. Nuclear energy, which currently contributes about 3 percent to India's electricity generation, is targeted to increase five-fold by 2020. The National Mission on Enhanced Energy Efficiency (NMEEE), built on the Energy Conservation Act of 2001, establishes a market mechanism for trading energy efficiency certificates in energy-intensive sectors. With plans for a full roll-out by April 2011, India will become the first developing country to put in place a market-based mechanism to control energy-related emissions.

As impressive as the NAPCC was when launched, it did not hint at any shift in India's approach to the multilateral negotiations. Prime Minister Singh promised, as part of the NAPCC, that India's per capita emissions would not exceed the per capita emissions of the developed world. The commitment received a lukewarm response internationally, primarily because it meant that India was not yet ready to contemplate undertaking mitigation actions.

¹⁴ Government of India, *National Action Plan on Climate Change*.

¹⁵ The Missions include the National Solar Mission, National Mission on Sustainable Habitat, National Mission for Sustaining the Himalayan Ecosystem, National Water Mission, the National Mission on Enhanced Energy Efficiency, National Mission for a Green India, National Mission for Sustainable Agriculture and National Mission on Strategic Knowledge for Climate Change. For more details see Pew Center, *Summary: India's National Action Plan*.

¹⁶ M. Singh, "Release of the National Action Plan on Climate Change", Prime Minister's Speech, 30 June 2008, <http://www.pmindia.nic.in/lspeech.asp?id=690>

Other domestic measures

Apart from the NAPCC, India has taken other steps to further its domestic climate agenda. The 2010 Budget passed a levy on domestic and imported coal of about USD 1 per ton establishing a price on carbon, one of the few seen in any other country. The revenues generated from this policy, estimated at about \$500 million a year, will be for research and development in clean energy technologies and environmental programs. An Expert Group to develop a pathway for low carbon development was also set up to make recommendations that will be included in the twelfth five-year plan, the signature economic development plan of the country.

International engagement

A more concrete shift in India's position internationally was seen in 2009, following the re-election of Prime Minister Singh. In the run-up to the high-profile Copenhagen Climate Summit, then newly appointed Minister of Environment and Forests Jairam Ramesh indicated that he had been instructed by the prime minister to play a constructive and proactive role in the climate change negotiations.¹⁷ Wanting to be perceived as a deal maker rather than a deal breaker, a reputation that India had earned through its hard-line negotiating style in both climate and trade negotiations, Prime Minister Singh emphasized the need for India to engage actively and "to play a role in the international arena in a manner that makes a positive contribution to finding solutions to major global challenges, whether in the field of trade or climate change".¹⁸

One of the first signs of departure from India's traditional stance was seen at the Major Economies Forum (MEF) in L'Aquila, Italy, in 2009. The MEF countries, of which India is a part, agreed that the increase in global average temperatures above pre-industrial levels should not exceed 2 degrees Centigrade. To many, this language implied that India as well as other emerging developing countries would need to undertake mitigation actions.

Continued international pressure and the spotlight on the Copenhagen Climate Summit led a number of developed and developing economies, along with India, to announce efforts to reduce GHG emissions. India pledged to voluntarily reduce its emissions intensity (emissions per unit GDP) between 20 to 25 percent below 2005 levels by 2020. This marked a shift not only because India agreed to undertake mitigation actions but even more so because it agreed to do so without any

¹⁷ Ramesh, "Intervention in the Lok Sabha", 228–47.

¹⁸ M. Singh, "PM Outlines Priorities for Global Engagement", Prime Minister's press release, 25 August 2009, <http://www.pmindia.nic.in/pressrel.htm>

international financial support; a clear indication that India understood and acknowledged its own responsibility and was ready to engage proactively.¹⁹

Another important development pre-Copenhagen was the alliance formed by India with other major emerging economies, Brazil, South Africa and China, creating the BASIC grouping of countries in late 2009. India can be credited with playing a key role in the conceptualisation of this bloc.²⁰ This move signaled the acceptance by the major developing economies, including India, of their collective responsibility towards climate change as different from the rest of the developing countries. BASIC has emerged as a powerful voice within the negotiations and plays a leadership role among the developing countries.

The Copenhagen Climate Summit

The Copenhagen Climate Summit (December 2009) was a victim of extremely high expectations. With over 100 heads of state participating in it, the pressure to deliver a new legally binding agreement was immense. However, a disconnect remained between the sky-high expectations and the reality on the ground where the fundamental positions of countries had not shifted. This proved to be a recipe for failure in Copenhagen and the summit was criticised internationally for being a huge disappointment.

In spite of the criticism that surrounded the summit, it produced the Copenhagen Accord, the most substantial consensus on climate change since the Kyoto Protocol in 1997. In the Accord, countries agreed to limit temperature increases from pre-industrial levels to 2 degrees Centigrade; countries adopted a differentiated approach to mitigation with developed countries agreeing to undertake emission reduction targets and developing countries agreeing to undertake nationally appropriate mitigation actions; and countries also agreed to a process for verification of mitigation actions. Furthermore, developed countries committed to providing USD 30 billion in fast-start financing and mobilising up to USD 100 billion a year by 2020 from public and private sources for developing countries.

The Accord was a political agreement brokered by US President Barack Obama and the leaders of the BASIC countries which has, since then, been endorsed by more than 100 countries. It was not adopted, however, by the UN body and as such does not have any legal standing within the UN framework. Yet, with regard to substance, the Accord was a success. It was able to strike a delicate balance between the needs of the developing and developed countries: on the one hand, developed

¹⁹The government plans to conduct modeling of mitigation options and costs, and economic implications of climate change on India. Climate Modeling Forum, *India's GHG Emissions Profile*, 5.

²⁰J. Ramesh, "Suo Moto Statement of Shri Jairam Ramesh, Minister of State (Independent Charge) Environment and Forests in Rajya Sabha", 22 December 2009, http://moef.nic.in/downloads/public-information/COP%2015_meet.pdf

countries insisted on establishing a process to ensure transparency and verification of mitigation actions, and on the other hand, developing countries stood firm on the need for international climate financing to be provided by developed countries. The Accord addressed both these issues and achieving this balance was possible only because of the 'in the trenches' negotiating by the leaders of the US and the BASIC countries.

Apart from India's active participation as a member of the BASIC in Copenhagen, it played a crucial role as a facilitator between China and the United States, the two largest GHG emitters. An important issue for the US and other developed countries in the multilateral negotiations has been to establish a process to ensure transparency of mitigation actions pledged by developing countries (in negotiators' speak referred to as 'measurement, reporting and verification' - MRV). Leading up to the Copenhagen Climate Summit, there was significant tension around this issue primarily since China, and to some extent India, expressed concern about potential infringements of their national sovereignty. Acting as a 'deal maker', India helped find middle ground between the United States and China by introducing the concept of 'international consultations and analysis'. The introduction of this language was amenable to both China and India since it allowed for creative latitude in its interpretation of what the process for transparency would include and removed references to 'verification' which was considered intrusive by both India and China.

The Cancun Climate Conference

In the aftermath of the Copenhagen Summit, the international community set more realistic expectations for the next round of negotiations in Cancun in 2010. Leading up to the conference, countries made it clear that the Cancun outcome must be a 'balanced package', that is, one that captured progress on all the issues under consideration. The Cancun Agreements, considered a success by most, was able to deliver on this. It incorporates the key elements of the Copenhagen Accord (which was not adopted by all parties to the Convention) and further strengthens them. Of particular importance is the anchoring of mitigation targets and actions of both developed and developing countries within the Agreements, the first time that all major economies have made explicit mitigation pledges within the Convention. Furthermore, parties agreed to take the first steps to implement the operational elements of the Accord, including establishing the Green Climate Fund, a system to flesh out the 'measurement, reporting and verification' processes including 'international consultations and analysis' for developing countries, establishing a Technology Mechanism and an Adaptation Committee. The particularly contentious issue of whether or not developed countries would undertake a new round of targets under the Kyoto Protocol was dealt

with in the Agreements by leaving all options on the table, thereby not dissatisfying any particular country.

India continued its constructive engagement within the negotiations. In the run-up to the Cancun conference, incremental progress had been made on most issues like finance, technology, adaptation and forestry. However, the issue of MRV – critical to the developed countries – remained at an impasse. Since countries had made it clear that success in Cancun was achievable only if the final outcome was ‘balanced’, making progress on the MRV issue was essential for a successful outcome. Ramesh’s proposal to detail the process of ‘international consultations and analysis’ presented at the Major Economies Forum a month before the Cancun conference broke the deadlock and was welcomed by developed countries as the path forward. By helping to find the middle ground among developed and developing countries on the issue of MRV in Cancun, India was applauded for its role as a ‘bridge builder’ and credited for the key role it played towards the success of the Cancun Agreements.²¹

India has been recognised as a country not only willing to be flexible in its own approach but willing to leverage its relationship with China and other emerging economies to get an agreement. Praising India, a negotiator was heard saying: “You have to give it to the Indian minister the way he is tightrope with both the US and the BASIC group of countries. India is genuinely becoming an important rallying point in the talks.”²² For a country that stood by its hard-line position based on the principle of equity and historical responsibility, this move towards a more practical and solutions-based approach to achieve incremental progress has been welcomed internationally.

Domestic reactions to India’s engagement on climate change

While the domestic measures contained in the NAPCC have generally been welcomed by the Indian climate community (limited criticism from the NGO community has focused mainly on the program’s lack of detail, lack of stakeholder involvement and the fact that it is not target-driven²³), the same cannot be said for India’s international positioning in the climate negotiations. The various stances in the national debate on India’s engagement in climate politics range from those

²¹ “Ramesh ‘Built Bridges’ in Cancun Climate Talks”. *Times of India*, 12 December 2010. <http://timesofindia.indiatimes.com/home/environment/developmental-issues/Ramesh-built-bridges-in-Cancun-climate-talks/articleshow/7088088.cms>

²² J. Basu, “Cautious Support for Jairam’s Tightrope Act”, *The Telegraph*, 7 December 2010, http://www.telegraphindia.com/1101208/jsp/nation/story_13273144.jsp

²³ For statements from civil society on the NAPCC, see “WWF-India’s Reaction to the Climate Change Plan”, WWF India, http://www.wwfindia.org/news_facts/infocus/index.cfm; “India’s Climate Plan ‘Right Step’”, *BBC News*, 8 July 2008, <http://news.bbc.co.uk/2/hi/7495021.stm> and; “The Action Plan on Climate Change, G8 Declaration, and the Accra Climate Change Meet: Points to Ponder”, CENTAD, August 2008, http://www.centad.org/download/Climate_Brief_5.pdf

who believe that development and growth must occur first to those who believe that climate change offers an opportunity for India.²⁴ A see-sawing between these opposing ideologies has emerged as India has engaged more proactively in the international negotiations.

India's first sign of a deviation from its traditional position was when Prime Minister Singh concurred to the 2 degree goal at the MEF meetings in L'Aquila. This was met with widespread criticism domestically from NGOs and stalwarts of the Indian climate negotiating team and he was accused of compromising India's development objectives.²⁵ Some, like the Prime Minister's Special Envoy on Climate Change, Shyam Saran,²⁶ and the former Under Secretary General of the UN, Nitin Desai, defended the prime minister's position and clarified that agreeing to the 2 degree goal did not compromise India's development nor did it necessarily mean emission caps for India.²⁷ Ramesh's controversial, leaked letter²⁸ to the prime minister questioning India's association with the G77 and suggesting a move away from the Kyoto Protocol created an uproar among the Indian environmental community as well as senior climate negotiators. The opposition Bharatiya Janata Party (BJP) questioned the approach and said that such a change would mean that India would have to pay the price for the pollution caused by developed countries.²⁹ Ramesh's own political party, the Congress, distanced itself from his controversial stance and Ramesh was forced to reiterate his support for the Kyoto Protocol.³⁰

Prior to the Copenhagen Climate Summit, Ramesh participated in a four-hour long debate in Lok Sabha (lower house of Parliament) where he assured the members of Parliament (MPs) that India would not sell out to the West. During the same debate, India's Copenhagen pledge was announced. Reactions from experts ranged from cautious to outright supportive: Sunita Narain of CSE described it as

²⁴ Navroz Dubash divides Indian opinion on climate change into three categories: growth-first stone-wallers, progressive realists and progressive internationalists. For more details, see Dubash, *Toward Progressive Indian Climate Politics*.

²⁵ N. Sethi, "Negotiators Slam India's Climate Flip at Italy Forum", *Times of India*, 16 July 2009, <http://timesofindia.indiatimes.com/india/Negotiators-slam-Indias-climate-flip-at-Italy-forum/articleshow/4782193.cms>

²⁶ "India Against Emission Cuts", *Deccan Herald*, 17 July 2009, <http://www.deccanherald.com/content/14212/india-against-emission-cuts-says.html>

²⁷ R. Tikoo, "Experts Laud PM's Stand on Climate Change", *Financial Express*, 31 July 2009, <http://www.financialexpress.com/printer/news/496181/>

²⁸ N. Sethi, "Jairam for Major Shift at Climate Talks", *Times of India*, 19 October 2009, <http://timesofindia.indiatimes.com/india/Jairam-for-major-shift-at-climate-talks/articleshow/5136979.cms>

²⁹ "BJP Fumes, Congress Steers Clear", *Hindustan Times*, 19 October 2009, <http://www.hindustantimes.com/BJP-fumes-Congress-steers-clear/Article1-466975.aspx>

³⁰ TNN, "Congress Distances Itself from Shift on Climate Stand", *Times of India*, 20 October 2009, <http://timesofindia.indiatimes.com/india/Congress-distances-itself-from-shift-on-climate-stand/articleshow/5140080.cms>

“nothing new”³¹, the president of the Confederation of Indian Industry, Jamshyd Godrej, commented on it as “completely doable”³² and Nitin Desai, expressed support for India’s pledge as “very positive, very constructive, basically in India’s interest, much more importantly, . . . in the global interest”.³³ A young MP stated, “We have to adopt emission cuts and take the moral responsibility”.³⁴ On the other hand, the opposition and other senior members of the Indian delegation expressed concern about India offering a unilateral pledge without any reciprocity from developed countries.³⁵ Further disagreements between senior members of the Indian climate delegation and Ramesh’s ‘flexible’ approach³⁶ surfaced and, after the Copenhagen Climate Summit, those members resigned.

In spite of the accolades that India received internationally for its contribution in brokering the MRV issue that led to the Cancun Agreements, domestically the move was criticised as a tool to remove differentiation between developed and developing countries.³⁷ When Ramesh deviated from the official script in a ministerial statement in Cancun and said that “all countries must take on legally binding commitments in an appropriate legal form”, this was interpreted widely as India agreeing to a legally binding commitment, which had until then been a non-negotiable issue for India. The opposition criticised Ramesh for “buckling under pressure from the US”.³⁸ Ramesh later clarified that “appropriate legal form” had been misconstrued to mean ‘a legally binding agreement’ when it could also simply be a decision by the Conference of the Parties.³⁹ He defended his position in a letter to the MPs as being a nuanced one and taken “to walk the thin line between safeguarding our position while showing a level of sensitivity to the view shared by the majority of countries at Cancun, including many of our developing

³¹ “India’s Independent Stand to Help Climate”, *CNN-IBN*, 4 December 2009, <http://ibnlive.in.com/news/india-takes-an-independent-stand-to-help-climate/106443-11.html>

³² TNN, “Jairam Persuades Negotiators to Join Climate Talks”, *Times of India*, 7 December 2009, <http://timesofindia.indiatimes.com/india/Jairam-persuades-negotiators-to-join-climate-talks/articleshow/5308944.cms>

³³ “India’s Independent Stand to Help Climate”, *CNN-IBN*, 4 December 2009, <http://ibnlive.in.com/news/india-takes-an-independent-stand-to-help-climate/106443-11.html>

³⁴ P. Ghosh and L. Mathew, “UPA Bites the Bullet on Climate Change”, *Livemint*, 4 December 2009, <http://www.livemint.com/2009/12/04004356/UPA-bites-the-bullet-on-climat.html>

³⁵ TNN, “Jairam Persuades Negotiators to Join Climate Talks”, *Times of India*, 7 December 2009, <http://timesofindia.indiatimes.com/india/Jairam-persuades-negotiators-to-join-climate-talks/articleshow/5308944.cms>

³⁶ *Ibid.*

³⁷ “CSE Slams Ramesh’s Stance on Global Scrutiny”, *Business Standard*, 4 December 2010, <http://www.business-standard.com/india/news/cse-slams-ramesh%5Cs-stanceglobal-scrutiny/417118/>

³⁸ “Government Faces Opposition’s Fire for Cancun Statement”, *Financial Express*, 11 December 2010, <http://www.financialexpress.com/news/govt-faces-oppn-fire-for-cancun-statement/723285/>

³⁹ U. Goswami, “Legal Agreement is Bone of Contention at Cancun”, *Times Of India*, 10 December 2010, <http://economictimes.indiatimes.com/news/politics/nation/Legal-agreement-is-bone-of-contention-at-Cancun/articleshow/7074786.cms>

country partners”.⁴⁰ Prime Minister Singh came to Ramesh’s rescue by saying not to read too much into Ramesh’s statement.

The heated debate in India on its engagement multilaterally on climate change is characteristic of a country in which there has not been much discussion on climate change until very recently. It is also reflective of a dynamic democracy that is simultaneously grappling with varying priorities, high economic growth rates and large numbers of its population still below the poverty line.

Why the change?

The dramatic shift in India’s strategy can be explained by looking at the multiple objectives that addressing climate change can help achieve both at home and abroad. Domestically, India’s vulnerability to the impact of climate change makes a strong case for climate action. Energy security and energy access, top priority issues for the Indian government, are other important drivers. Establishing itself in the emerging clean energy market can create new economic opportunities and help India realise its goal of leader in the technology choices of the future. In the global context, India’s growing clout as an economic and political power of the 21st century and its aspiration to permanent membership in the United Nations Security Council are other reasons to assume greater responsibility in global matters like climate change.

India is a country that will be extremely vulnerable to the impact of climate change. Melting glaciers in the Himalayan region could result in water stress in the Gangetic basin over the long term, as already mentioned. In addition, the World Development Report estimates that agricultural production could be reduced by 4.5 to 9 percent in the next three decades due to climate change.⁴¹ India’s economy is dependent on agriculture and any shifts in its agricultural yields would be disastrous for meeting not only its economic but also its development objectives. Rising sea levels, another potential impact of climate change, can be devastating for the hundreds of millions of people living in coastal India. India’s vulnerability and the impact climate change can have on millions of its citizens and its growing economy is reason enough for the Indian government to take action on climate.

One of the most compelling reasons for India’s newly developed climate strategy is the need to ensure secure and adequate energy supplies for its people. India’s energy needs are likely to quadruple between now and 2030. India cannot afford to restrict its energy supplies to conventional sources like coal and oil. Even though it is widely accepted that coal will remain the mainstay of the economy for the foreseeable future, the inefficiencies related to its production combined with

⁴⁰ “Jairam Defends Nuancing India’s Position at Cancun”, *Hindu*, 25 December 2010, <http://www.thehindu.com/news/national/article977270.ece>

⁴¹ World Bank, *World Development Report 2010*.

soaring energy demands warrant exploration of other sources. India is currently a net oil importer, with about 70 percent of its needs coming from outside the country. With oil-rich resources located in relatively unstable regions of the world and growing resource competition from China and others, this energy source is not particularly reliable either. It then comes as no surprise that Delhi ranks energy security second only to food security. Delhi's emphasis on a shift away from fossil fuels-based energy sources, as seen in the NAPCC, not only makes sense if seen in the climate context but also if one takes into account the energy demands of the country. India's economic success will largely depend on its ability to tap into other energy sources to meet the energy needs of its growing billion-strong population. In the words of Kirit Parikh, a former member of the Planning Commission, "Given the limited hydrocarbon resources of the country, even if there was no threat to climate change, it would be imperative that we develop solar technology for power"⁴²

One of the main objectives of India's domestic policy is to lift its millions from poverty and raise their standards of living. A pressing issue for Prime Minister Singh and his government is to develop domestic policies that will provide reliable access to energy for its people. Delhi is well aware that without adequate access to energy, India's development will be at stake. Using decentralized power generation through solar and other renewables in rural India can help meet this objective.

India's aggressive foray into the solar energy and renewables market, as outlined by the NAPCC, can help position it as a leader in the clean energy technology markets. Studies show that investments in clean energy technologies could be worth about USD 2.2 trillion by 2020 and annual investments in global renewable energy markets could reach as much as USD 424 billion a year in 2030.⁴³ China is already a leader in solar power manufacturing and wind generation, and the Danes and Germans have been pouring large sums of money into developing this sector as well. India's Solar Mission creates a policy framework that will enable it to become globally competitive and establish itself as a frontrunner in solar manufacturing.⁴⁴ India is already among the top five countries in renewable energy capacity and Suzlon, an Indian company which is a leader in wind turbine manufacturer, is just one example of the immense potential that lies in this market. India, through its climate programs, is now setting in place policies that will allow it to drive the clean energy markets globally and be a leader in the technology choices of the future.

⁴² K. Parikh, "It's Time for India to Turn to the Sun", *Hindustan Times*, 30 December 2010, <http://www.hindustantimes.com/It-s-time-for-India-to-turn-to-the-sun/Article1-644622.aspx>

⁴³ Pew Center, *Clean Energy Markets*.

⁴⁴ F. Abdullah, "A Renewable Future for Mankind: Challenges and Prospects", *Making It Magazine.net*, 13 January 2011, <http://www.makingitmagazine.net/?p=2849>

Delhi's proactive engagement on the climate issue can also be attributed to its desire to play a larger role in global governance.⁴⁵ Its aspiration to the much-coveted permanent membership of the United Nations Security Council is no secret. India's push for greater voting rights in international financial institutions like the International Monetary Fund and the World Bank are further examples of India's interest in playing a greater global role. Continuing its traditional posturing within the G77 countries as a leader of the South, and adhering to the strict divide created by the Kyoto Protocol between the responsibilities of the developed and developing countries, would not play favourably in this context. Ramesh's leaked letter to Prime Minister Singh arguing that India should abandon the G77 and the Kyoto Protocol is evidence of the fact that Delhi is aware of this.

The changing geopolitical landscape and India's placement within it are further reasons for India's growing engagement on climate change. India's economy has been clocking high growth rates, its corporate houses have been making significant acquisitions abroad, and its military spending has doubled in the last five years. Two events have also contributed to India's recognition on the global stage as a serious player. The usually strained bilateral relationship between the United States and India took a marked turn with the signing of the US–India Civil Nuclear Cooperation '123' Agreement on nuclear cooperation in 2005 and the lobbying by the US in the Nuclear Suppliers Group to allow bilateral nuclear trade with India. The second and possibly more important development was India's participation in the recent G20 talks. Revived in the wake of the financial crisis, India's contribution is seen as critical due to its large and rapidly growing economy. Prime Minister Singh commented that for the first time "there was a genuine dialogue between major developed countries and major emerging countries"⁴⁶ and India was treated as a partner, not a petitioner.

But with power comes responsibilities. For India to be perceived as a legitimate global power, the world needed to see India as a country able to shoulder responsibilities. India could not continue to play its traditional role in global politics. Instead it needed to deviate from its traditional 'universalist' stance and take positions that might befriend developed countries and possibly anger some of its friends from the South.

This recognition by India to shift from its traditional foreign policy principles is mirrored in its stance on climate change. India's portrayal as a developing country with no obligations in the climate context became invalid with its emergence as a global power. As the fourth largest emitter of GHG emissions and a country

⁴⁵ J. Kahn, "India Cleans Up its Act", *Newsweek.com*, 6 November 2009, <http://www.newsweek.com/2009/11/05/india-cleans-up-its-act.html>

⁴⁶ M. Singh, "Transcript of PM Singh's Question and Answer Session on Board Air India Flight", 16 November 2008, <http://www.livemint.com/2008/11/16134427/8838A4DF-F06B-43AC-91F7-22A8F5AC43CDArtVPE.pdf>

playing a prominent role in global issues, it could no longer argue that it did not have any climate responsibility.

Looking ahead

India's newly emerging climate strategy faces various challenges in the future, both domestically and on the international front. While India's list of domestic actions is impressive by any standards, it remains a list.⁴⁷ One of the foremost challenges for a democratic country like India will be to implement the many climate-related policies that have been outlined. Implementation of the NAPCC missions will require a substantial amount of heavy lifting by various ministries to ensure that goals are met. Involving stakeholders at all levels will ensure solid support for the programs domestically. Likewise, to avoid the backlash that its multilateral position has been met with hitherto, the government should reach out to the Indian public regularly to communicate and justify its changing approach.

India's ambition to gain a seat as a permanent member of the UN Security Council received a boost when it was endorsed by President Obama in November 2010. Its nomination to the Council as a non-permanent member in 2011, after a hiatus of almost two decades, is both an opportunity and a test for India's diplomatic skills. As India assumes its seat on the Council for the next two years, it will be closely watched by the world to judge its worthiness for permanent membership. India will need to seize this opportunity to demonstrate that it is able to effectively balance the interests between developed and developing countries. India's role as a facilitator within the climate change negotiations can play favourably in this regard. By setting realistic expectations that help lead toward a durable and effective multilateral climate regime, India can continue to play a critical role and display leadership on an important international issue.

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⁴⁷ As of February 2011, the Solar Mission has been launched and the energy efficiency trading mechanism of the National Mission on Enhanced Energy Efficiency is expected to be launched in April 2011. The remaining six missions are in various stages of approval.

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