

## **Indian Diplomacy at work - Climate Change**

Earth's climate determines, to a very large extent, the sustainability of human habitat. While the climate experiences dramatic swings over long periods of time due to natural reasons, a new element of anthropogenic (human induced) global warming of atmosphere has been introduced after the industrial era began, adding an unprecedented and urgent dimension to climate change. The consequences of global warming are believed to result in increasing frequency of floods, droughts, extreme weather events, melting of ice caps and glaciers, impact on ocean currents and ocean-atmosphere cycles, ocean acidification, rising sea levels/coastal flooding threatening small islands and deltas, shrinking forests, impacting food security, fresh water availability and loss of biodiversity. As the understanding of the global impact of human induced climate change grew, countries of the world came together to negotiate agreements to collectively address this increasing problem.

The GHG (greenhouse gas) emissions primarily result from burning of fossil fuels (oil, gas, coal) in industrial production, road/rail/aviation/ maritime transportation, power generation, buildings, agriculture etc. All these are important sectors for economic development. Therefore, any international commitments or voluntary pledges that may be undertaken as a result of negotiations on ways to address climate change impact on options for economic/ development pathways; technology and energy sources that countries can pursue, making this an international economic competitiveness issue. This makes the negotiations especially contentious. While the developed countries have prospered following fossil fuel based industrialization and very high per capita energy consumption, the developing countries still have very low per capita energy consumption and face massive challenges of development and can scarcely afford reducing their energy consumption.

The concerns, positions and expectations of countries towards the climate change negotiations are defined, to a large extent, by their energy profile; their historical experience and development stage; and their specific perceived vulnerabilities to impacts of climate change or dependence on fossil fuels besides other international dynamics and concerns including those relating to economic competitiveness.

International negotiations on Climate Change are being conducted under the UNFCCC (UN Framework Convention on Climate Change) aimed at finalizing arrangements specifying the efforts to be undertaken by various countries to combat

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<sup>1</sup> Source: Embassy of India in Belgrade, <http://eoibelgrade.gov.in/>

human induced global warming. The UNFCCC was finalized in 1992 and ratified in 1994. The arrangements agreed under the UNFCCC so far cover the period upto 2020. The legally binding agreements valid so far (Kyoto Protocol of 1997, which entered into force in 2005) have prescribed ‘absolute’ greenhouse gases (GHG) emission reduction targets applicable to a group of industrialised countries (Annex-I Parties), as part of their ‘historic responsibility’ for having caused global warming through their industries and other uses of fossil fuels since the industrial revolution. The Annex-I countries are also required to provide financial assistance and technological know-how to the developing countries to enable them to shift to more environmentally sensitive economic pathways.

The first Principle of the Convention states that ‘The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof’. Parties agreed to record their GHG emissions and publish yearly summaries. The preamble noted that ‘the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs’. Article 4.7 states that the extent of the effective implementation of commitments by developing countries under the Convention will depend on financial resources and technology provided by developed countries and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of developing country parties.

The developing countries have been exempt from making any legally binding emission cuts so far, although many (including China and India) have made voluntary pledges in 2009 mostly to reduce the energy intensity of their economies (not absolute emission cuts) as part of their responsible behaviour and in their own interest. Developed countries are pushing for large developing countries to also undertake further binding commitments.

While the 1992 UNFCCC agreement and the subsequent Kyoto Protocol clearly defined the different sets of commitments for developing and developed countries (on the basis of principles of historical responsibility, CBDR, respective capabilities and equity which flow from the 1987 Montreal Protocol on controlling the Ozone depleting substances and the 1992 Rio Declaration on sustainable development), the non-ratification of the Kyoto Protocol by the US (the largest emitter at the time and the largest historical emitter) led to a situation where many other developed countries also said that they would opt out unless the US undertook similar legally binding commitments. The US made any participation in this process conditional to large developing countries also taking on emission cuts. Several developed countries continue to stay outside the Kyoto Protocol (which will be valid until 2020).

Negotiations are now underway to finalize by December 2015 a single agreement applicable to all parties to cover the post 2020 period. All countries are required to convey their 'intended nationally determined contributions' before the 2015 agreement.

The developed country parties under the two Annexes have not shown much enthusiasm to fulfill their commitments on emission cuts or to provide finance and technology to developing countries.

The developed countries (Annex I parties) have clearly failed to honour their commitments made under the UNFCCC and the Kyoto Protocol – both relating to emission reduction and provision of finance and technology to developing countries. Despite the vast disparity between the living standards of people in developing and developed countries and in their per capita consumption of energy, the developed countries are pushing the developing countries, especially those with growing economies, to accept various constraints without honouring their own commitments. At the same time, various studies have shown that the developing countries on their own voluntarily have been doing more in recent years to tackle the climate change challenges within their countries in reducing the emission intensity of their GDP growth through opting for greener technologies, renewable energy, improving energy efficiency etc.

## INDIA

The Indian civilization has long believed in the virtues of living in harmony with nature. Rivers, forests, trees, mountains, flora and fauna have been held sacred by these ancient traditions, which revered earth as mother. The need for preservation of environment and ecology and the duty of rulers in this regard find extensive references in ancient Indian texts.

At the 1972 UN Conference on Man and Environment in Stockholm, India's Prime Minister Indira Gandhi highlighted the link between development and environment and stated that poverty was the greatest polluter.

Today, India, with 17% of the world's population, accounts for around 4% of current annual global CO<sub>2</sub> emissions. However, in terms of per capita, India's CO<sub>2</sub> emissions are a very small fraction as compared to the big emitters.

In recent years, India has achieved significant success in lifting large sections of its population out of poverty through inclusive economic growth. However, the scale of challenge remains vast. Despite being a growing economy, India has a long way to go to provide a decent standard of living to all of its people. This would require continuing increase in energy use and other resources, including financial resources. Given the nature of India's energy sources, its energy mix, likely several developed and developing countries, is likely to continue to be dependent mainly on fossil fuels (oil, gas, coal) over the medium term. In view of the massive scale of India's development needs and priorities of poverty alleviation, to bring access to energy and other resources to its people, continued economic growth is essential.

In his address at the 2007 G 8 plus 5 meeting at Heiligendamm, Germany India's Prime Minister Dr. Manmohan Singh stated India's determination that 'India's per-

capita GHG emissions are not going to exceed those of developed countries even while pursuing policies of development and economic growth’.

In 2009 just before the Copenhagen COP meeting, India also made a voluntary pledge on emission intensity reduction (20-25% by 2020 over 2005 levels). In 2010 this pledge was inscribed into the UNFCCC (alongwith those by several other developing countries).

The Government of India recognizes the importance and scale of the problems associated with global warming and the adverse impacts of climate change especially on sectors such as agriculture, forestry and water. The Government has pursued an ambitious National Action Plan on Climate Change (NAPCC) comprising eight national Missions (including ones on solar energy and on energy efficiency) to turn its growth and development pathways to a more sustainable trajectory. Most of the States have also drawn up their action plans on climate change.

Some of the ongoing climate change adaptation programmes in India include : crop improvement research, drought proofing (reducing impacts on crops and livestock, productivity of land, water and human resources), afforestation, conservation/recharge of ground water, rain water harvesting, protection of sensitive coastal ecosystems, surveillance and control of vector borne diseases, capacity building for emergency medical relief, risk financing through crop insurance schemes and credit support mechanisms, disaster risk reduction and management measures.

Some of the ongoing GHG mitigation programmes besides the National Missions include promotion of energy efficiency and renewable energy including biofuels, accelerated development of nuclear and hydro power, R&D on clean energy technologies, energy labeling for appliances, Energy Conservation Building Code, energy audit of large industrial consumers, promotion of mass transport, clean air initiatives and the promotion of energy saving devices (fluorescent lamps, solar water heater).

The National Solar Mission aims to promote solar thermal power generation, solar photovoltaic generation, R&D collaboration, technology transfer and capacity building. The national Mission on Enhanced Energy Efficiency in Industry focuses on the development of sector specific and cross cutting GHG mitigation technology options, fuel switch, potential for emission reduction, co-benefits in terms of reduced fuel and material use leading to reduced emissions and improvement in quality of products, technology transfer, financing, capacity building, policy and regulatory options, delivery options (retrofits by institutional finance, SME cluster development and the promotion of ESCOs Energy Service Companies and Energy Efficiency Financing platforms alongwith the Bureau of Energy Efficiency.

In May 2014 the Ministry of Environment and Forests has been renamed as the Ministry of Environment, Forests and Climate Change reflecting the importance attached by the Government to meeting the challenge of climate change. In his 2014 Independence Day speech, Prime Minister of India Narendra Modi called for manufacturing sector to try and make products which have ‘zero effect’ or no adverse impact on the environment. The Government is also laying high priority to cleaning of rivers.

In the most recent Union Budget (2014-2015) India has doubled the Clean Energy cess on coal, peat and lignite (to Rs. 100 per tonne) to augment the funds to address climate change. A National Adaptation Fund for Climate Change is being set up with a funding of around US\$ 18 million. A National Institute on Climate Change is also being set up. A sum of around US\$ 90 million has been allocated for setting up of Ultra Mega Solar projects in five states. A sum of around US\$ 18 million has been allocated for Ultra Modern Super Critical Coal based Thermal Power Technology. A sum of around US\$ 72 million has been allocated for a new scheme aimed at solar power driven agricultural pump sets and water pumping stations. A sum of around US\$ 18 million has been allocated to develop 1 MW Solar Parks on the banks of canals.

At the UNFCCC negotiating process India has been an active negotiator. India has continued to highlight the need to consider development imperatives of developing countries. India is a strong proponent of the CBDR and equity principles. India stresses that the developed countries have to fulfill their commitments under the Convention regarding their emissions cuts, assistance to developing countries in terms of financial assistance and transfer of technology.

India aligns itself closely with the G-77 (since the start of negotiations), the BASIC group (since 2009 Copenhagen meeting) and the LMDC (since 2011 Durban meeting). The BASIC group comprises Brazil, South Africa, India and China. LMDC (Like Minded Developing Countries) is a group of around 25-30 countries.

All countries are now required to submit their 'intended nationally determined contributions' (INDCs) in the lead up to the UNFCCC Conference of Parties (COP) to be held in Paris in December 2015. While the developed countries are primarily interested in eliciting mitigation pledges from the developing countries, the developing countries insist that INDCs should also include adaptation and means of implementation.

India looks forward to actively engage in the UNFCCC process to develop a comprehensive, balanced and equitable post 2020 agreement that takes into account the development needs of developing countries and addresses the climate change issues adequately through mitigation, adaptation and facilitation of financing, technology and capacity building for developing countries in a genuinely collaborative global effort.

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