India and Climate Change

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AGENDA

- India’s position on Climate Change
- Challenges that India face – Climate Change
- India’s INDCs
- India’s Action Plan
- Common Areas of Interest – Japan and India

India's position on Climate Change

- Addressing climate change is a national priority for India, and the country has voluntarily taken responsibility to respond to this challenge
- India is reducing its emissions intensity through voluntary domestic mitigation and adaptation efforts – 12% reduction in emission intensity of GDP between 2005 and 2010
- Country has taken large-scale initiatives to enhance energy efficiency and has also introduced mechanisms for monitoring air quality and pollution growth
- Stronger commitments are made to increase the composition of non-fossil fuel in the total installed capacity to 40% by 2030
- India's efforts towards addressing climate change, and those of other developing nations, need to be carefully weighed and balanced against development ambitions
- Developed countries need to support developing countries in combatting climate change in accordance with the principle of common but differentiated responsibility (CBDR) and respective capability
- A durable, comprehensive, balanced, equitable, and pragmatic agreement that encourages countries to commit to climate change action, and to maintain increasingly ambitious targets towards emissions reduction, is necessary and will be key to achievable and sustainable progress
- India is ready to offer its support to achieve consensus on climate change

Challenges that India faces

- India houses the largest proportion of global poor (30%, 363 million people), around 24% of the global population without access to electricity (304 million), about 30% of the global population relying on solid biomass for cooking and 92 million without access to safe drinking water
- 48% of households lack basic socioeconomic services and are categorized as deprived in a recent national socio-economic census.
- The average annual energy consumption in India in 2011 was only 0.6 tonnes of oil equivalent (toe) per capita as compared to global average of 1.88 toe per capita - no country has achieved HDI of 0.9 or more without annual energy consumption of 2.5 toe/cap
- It is expected that about 40% of India's population in 2030 would be urban, as against 30% currently

	2005	2010	2030	CAGR (2005-2030 in %)
GDP (Trillion INR at 2004-05 prices)	32.53	49.19	239.46	8.3%
Population (Million)	1106	1201	1523	1.3%
Urbanization	29%	31%	39 %	
Per capita GDP (INR at 2004-05 prices)	29,405	40,953	1,57,271	6.9%

- Electricity prices in India, a fraction of the per capita GDP, are considerably higher than the world average despite the lower purchasing power of the consumers in the country
- Goal is to enable high quality of life at 1.5-2 toe/capita - requires accelerated energy efficiency

India's INDC

India has developed its INDCs in accordance with its existing resources and capabilities and expeditious international support

- Reducing carbon intensity of its GDP by 33 to 35% from 2005 levels by 2030
- Increasing the share of non fossil fuel based electricity to 40% by 2030
- Accelerating afforestation efforts to create additional carbon sinks of 2.5 to 3 billion tonnes of CO2 equivalent
- Making concerted efforts toward adapting to climate change by enhancing investments in development programmes in various vulnerable sectors, including agriculture, water resources, forestry, health and disaster management
- Building capacities while adopting and deploying new energy efficient technology, and other technologies to reduce carbon emissions
- Mobilise resources to execute our plans for combatting climate change across sectors
- Adopt and promote low carbon-intensive lifestyles on a mass scale through sustainable living based on traditions and values of conservation and moderation

India is tackling climate change with large number of policy initiatives

National Action Plan on Climate Change

- Eight national missions to integrate multi-pronged, long-term strategies for achieving India's key goals for climate change

Jawaharlal Nehru National Solar Mission

- Enable deployment of 100,000 MW of solar power by 2022

National Mission for Enhanced Energy Efficiency

- Promote end-use demand side management with strategies and technologies for cost effective and efficient energy use

Clean India Mission, aka *Swachh Bharat Abhiyan*

- National campaign covering 4041 statutory towns to clean India's streets, roads and infrastructure

National Mission for Clean Ganga

- Coordinated effort to clean the Ganga River Basin, India's largest river

Expert Group on Low Carbon Strategies for Inclusive Growth

- Outlined India's plan for reducing emissions intensity by 20-25% between 2005 and 2020

National Mission for a Green India

- Develop adaptation and mitigation measures to enhance carbon sinks in sustainably-managed forest and ecosystems

National Clean Energy Fund

- Financed 46 innovative projects and research with USD 2 billion to promote clean energy initiatives

Energy efficiency measures

- It has already avoided over 44 million tonnes of CO2 emissions and installed over 2300 MW on and off grid solar capacity

Adaptation Measures

- Lifestyle changes
- National Action Plan on Climate Change
  - Sustainable habitats
  - Optimising water use efficiency
  - Creating ecologically sustainable climate resilient agricultural production systems
  - Safeguarding the Himalayan glaciers and mountain ecosystem
- State Action Plans on Climate Change – 32 states and UTs
- National schemes to promote organic farming, efficient irrigation systems, watershed management, improving soil health and climate resilient agriculture
- Creation of a National Adaptation Fund

Common Areas of Interest – Japan and India

Low Emission Coal Technologies and Coal Financing

- Identification and information sharing of Best Available Technology (BAT) Options and Best Practices(BP)
- All new, large coal-based generating stations in India have been mandated to use the highly efficient supercritical technology
- Learning from successful JV examples will provide valuable inputs to the two governments in designing enabling price/financial/regulatory incentives that foster private investment

Energy Efficiency

- Government of India has taken several regulatory, policy and market mechanisms to capture the energy efficiency opportunities across major economic sectors
- India has launched ambitious national programes for replacement of all conventional lighting in domestic and public space with LED bulbs in the next few years leading to energy savings of upto 100 billion kilowatt hours (kWh) annually
- A conducive regulatory and policy regime in energy conservation, makes it easier for Japanese businesses to invest in India

“The world has enough for everyone’s needs, but not for everyone’s greed”

-Mahatma Gandhi

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