

BASIC COUNTRIES

CLIMATE POLICY - FACT SHEETS

February 2010

INDIA



INTRODUCTION

India accounts for 5.3% of the world's annual emissions, at 1324.05 Mt CO₂ in 2007², with emissions expected to increase sharply in the future. India's energy demand is expected to more than double by 2030⁵, particularly because anything up to 500 million people still have little or no access to electricity. The focus of the government therefore remains on maintaining a high level of economic growth and addressing poverty.

Despite a heavy dependence on coal-based energy, India's per-capita emissions remain low, averaging around 1.2 t CO₂/capita. Nevertheless, cumulative emissions still make India the fourth largest emitter of greenhouse gases in the world today.

While the government recognises the importance of energy security, attempts to shift the country's energy mix towards renewables has taken and is expected to take a long time. While climate change provides major emerging economies such as India a unique opportunity to fuel low-carbon growth, the government's focus on maintain a high GDP growth rate implies that all climate-related policies are developed with the objective of achieving economic growth while delivering dual climate 'co-benefits'. Climate change is being largely addressed through policy and reform in energy and related sectors.

As with the other BASIC countries, India adheres closely to the principle of 'common but differentiated responsibilities' and maintains that it will not take on any legally binding commitments under the UNFCCC regime. However, in the recent past, India has made attempts to be seen as a 'deal-maker' at the UN climate negotiations and there has been a perceptible shift in India's approach to the climate issue with greater emphasis on action in the national interest and a more cooperative approach internationally. This can be seen in efforts such as the government's decision to promote renewable energy and energy efficiency domestically without waiting for external financial support, and undertaking a reassessment of the country's traditional 'per-capita' approach to burden sharing at the international level.

CURRENT COMMITMENTS

Under the UNFCCC, India has no binding commitments, and maintains that any action it takes in the future (without the help of external finance) will be voluntary domestic actions that will not come under international legally binding commitments.

Under the Copenhagen Accord, India's submissions include domestic mitigation actions to: **'endeavour to reduce the emissions intensity of its GDP by 20-25% by 2020 in comparison to the 2005 level'**.

In June 2008, India released its National Action Plan on Climate Change (NAPCC) - a 52-page outline of how the country seeks to address domestic mitigation and adaptation action. The NAPCC presents existing and future policies to shift the Indian economy towards more low-carbon growth, but fails to set any specific carbon reduction targets or timelines to achieve proposed actions. The NAPCC comprises eight national 'missions' up to 2017 to "identify measures that promote development objectives while also yielding co-benefits for addressing climate change effectively". These include the flagship mission of the NAPCC - the Jawaharlal Nehru National Solar Mission, as well as the mission on energy efficiency.

A full list of the eight missions, their key objectives and current status is provided below:

	NAPCC Missions	Key objectives	Mission Status
1	Jawaharlal Nehru National Solar Mission	20,000 MW solar energy by 2022	Passed by Parliament - November 2009 Released by PM - Jan 2010 Awaiting budget allocation Feb 2010
2	Enhanced Energy Efficiency	Create market for energy efficiency worth INR 74,000 Crores 10,000 MW by 2012 & avoided capacity addition of over 19,000 MW	Approved Aug 2009 To be implemented from April 2010 Awaiting budget allocation Feb 2010
3	Sustainable Habitat	Promote energy efficiency as core component of urban planning	Draft Stage
4	Water Mission	20% improvement in water use efficiency through pricing and other measures	Draft Stage
5	Sustaining Himalayan Ecosystem	Protect and conserve Himalayan ecosystems	Draft Stage
6	For a 'Green India'	Increase forest cover from 22% to 33% Afforestation of 6 million hectares of degraded forest	Draft Stage
7	Sustainable Agriculture	Develop climate-resilient crops, promote weather insurance mechanisms	Draft Stage
8	Strategic Knowledge for Climate Change	Improved climate modeling, formation of a Climate Research Fund	Draft Stage

In January 2010, India's Prime Minister Dr Manmohan Singh launched the country's ambitious Solar Mission, which was approved by the Union Cabinet in November 2009. The Solar Mission aims to add 20,000 MW of solar power in India by 2022. While some controversy remains over the exact target, if achieved it will add 10 percent of the power generated in India from solar energy, but the cost over this period of time is expected to be close to Rs. 90,000 crores leading critics to argue that this is unfeasible. The country's budget is expected to yield further clarity on this issue.

Policies in the pipeline include the Energy Efficiency mission under the NAPCC, renewable energy certificates for state power sector companies, and mandatory fuel efficiency standards by 2011.

CURRENT ACTIONS

Major policy reforms in the management of power, initiated in the early 1990s, began the process of revamping the ailing state-run power and energy transmission companies. The Energy Conservation Act (2001) and the formation of the Bureau of Energy Efficiency allowed the possibility of realizing the country's potential for energy saving. The Electricity Act (2003), National Electricity Policy (2005), and New and Renewable Energy Policy (2005) have helped increase private participation in the electricity sector and promoted renewable energy technologies in the overall energy mix. However, the full potential for using energy service companies to better manage electricity supply still suffers from a number of chronic problems including a high degree of government control in power sector undertakings.

On the efficiency side, energy labeling programmes introduced from 2006 onwards have encouraged private companies to sell energy efficient appliances. In the building sector, the Energy Conservation Building Code (2007) has helped promote building standards and ratings for buildings - primarily commercial and government.

The table below summarises a wider range of policies and measures undertaken by the Indian government on energy and climate issues (adapted from: IEA 2009).

Policy Name	Type	Target	Status	Year
Energy Conservation Awards	•Education and Outreach		In force	
Government Assistance for Small Hydropower Stations	•Incentives/Subsidies •Financial	•Energy Production	In force	
Government Assistance for Wind	•Incentives/Subsidies	•Energy	In force	

Policy Name	Type	Target	Status	Year
Power Development	S •Financial	Production		
Generation based incentives for wind power	•Incentives/Subsidies	•Energy Production	In force	2008
National Action Plan on Climate Change	•Policy Processes	•Framework Policy	In force	2008
Solar Power Generation Based Incentive	•Incentives/Subsidies	•Energy Production	In force	2008
Energy Conservation Building Code	•Regulatory Instruments	•Buildings	In force	2007
Ethanol Production	•Incentives/Subsidies •Policy Processes •Regulatory Instruments	•Transport	In force	2007
Pre-Payment Electricity Metering	•Regulatory Instruments	•Buildings •Multi-sectoral Policy	In force	2007
Integrated Energy Policy	•Policy Processes		In force	2006
Tariff Policy 2006	•Incentives/Subsidies •Regulatory Instruments	•Energy Production	In force	2006
Asia-Pacific Partnership for Clean Development and Climate	•Education and Outreach •Policy Processes •RD & D		In force	2005
National Electricity Policy	•Policy Processes		In force	2005
Central Financial Assistance (CFA) for Biogas Plants	•Education and Outreach •Financial •Policy Processes •Regulatory Instruments	•Energy Production	In force	2004

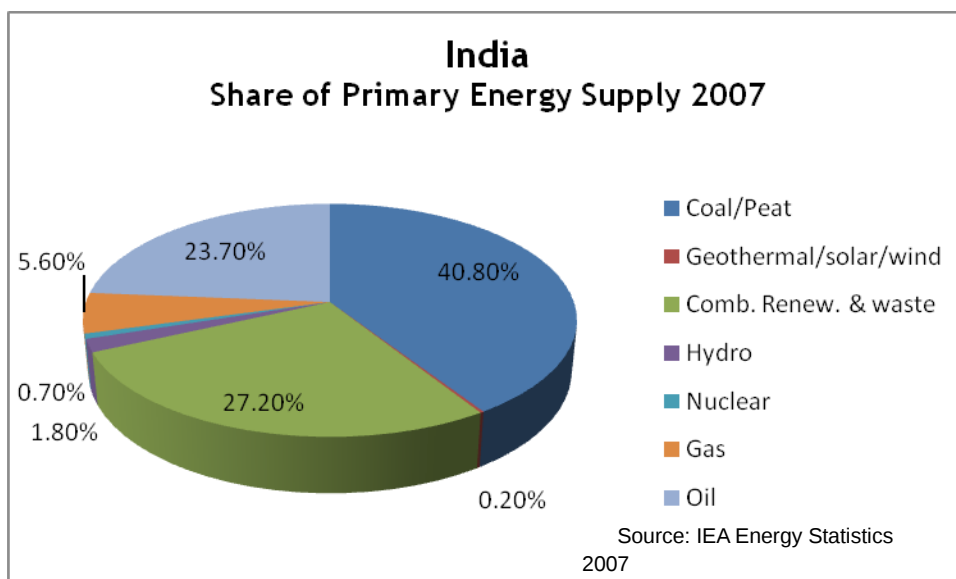
Policy Name	Type	Target	Status	Year
	•Incentives/Subsidies			
Electricity Act 2003	•Regulatory Instruments		In force	2003
Energy Conservation Act	•Education and Outreach •Regulatory Instruments	•Framework Policy	In force	2001

EMISSIONS PROFILE:

Between 1950 and 2006, India has experienced tremendous growth in fossil-fuel CO₂ emissions, averaging 5.8% every year⁸. Emissions from fossil-fuel consumption and cement production have more than doubled since 1990⁸.

Nearly 80 percent of the electricity in India in 2006 was generated by thermal power plants from coal⁶. Key contributors to India's GHG emissions include coal-based electricity (29.9%), livestock (12.6%) and the transport sector (9.5%)⁷.

Emission trends show a sharp increase between 1990 and 2005, of slightly over 68%.



KEY INSTITUTIONAL PLAYERS:

Since May 2009, the Ministry of Environment and Forests under new ministerial leadership has reasserted itself and taken effective charge of the development of India's climate change policy. The Prime Minister's Office (PMO) also plays a central role in decision-making on climate policy and helps provide coordination across Cabinet. In recent weeks discussions have also taken place to establish an inter-ministerial coordination mechanism on climate change policies.

The Prime Minister's Council on Climate Change, established in 2007, plays an advisory role in policy formulation but has no implementation responsibility. Implementation lies with the Planning Commission and the relevant ministries.

The Planning Commission is the nodal organization that integrates the developmental priorities of the various ministries, and is responsible for the country's Five Year Plans. Currently, an expert committee under the Planning Commission has been assigned the task of identifying how to deliver on India's Copenhagen pledge of achieving emission intensity reduction of 20-25% by 2020.

The ministries of New and Renewable Energy (MNRE), Power, Coal, and the Bureau of Energy Efficiency (BEE) all play key roles in formulating and executing policies relating to clean energy, energy efficiency, renewable energy and India's energy policy.

At the sub-national level, India's 25 states and union territories have been directed to formulate their own action plans on climate change and establish their own institutional mechanisms. The western state of Gujarat was the first state in India to set up a climate change department and is expected to shortly announce a budgeted state-level climate action plan.

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www.csmworld.org

www.indiaclimateportal.org

References

1. G8 climate scorecard. June 2008. WWF.
http://www.ecofys.com/com/publications/documents/G8_Scorecards_080625.pdf
2. IEA energy statistics - India.
http://www.iea.org/stats/indicators.asp?COUNTRY_CODE=IN
3. National Action Plan on Climate Change, Government of India
4. Jawaharlal Nehru National Solar Mission, Government of India
5. Energy Efficiency in India Part 2: World Resources Institute.
<http://www.wri.org/stories/2009/04/energy-efficiency-india-part-2>
6. India Information: Energy Information Administration, United States.
<http://www.eia.doe.gov/emeu/cabs/India/Electricity.html>
7. Emission Inventory and modeling in India. P.R. Shukla. IIM-A, 2003.
http://www.nies.go.jp/social/aim/AIM_workshop/8thAIM/SHUKLA_0303_02.pdf
8. India fossil fuel CO₂ emissions. CDIAC.
http://cdiac.ornl.gov/trends/emis/tre_ind.html
9. IEA website on India
<http://www.iea.org/textbase/pm/?mode=cc&action=view&country=India>