

# CLIMATE CHANGE LEGISLATION IN

## India

*AN EXCERPT FROM*

### **The 2015 Global Climate Legislation Study** **A Review of Climate Change Legislation in 99 Countries**



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# India

## Legislative Process

The Indian parliament is a bicameral legislature composed of a Lower House (the House of the People), and an Upper House (the Council of States).

The legislature passes laws – also called “acts” – on constitutionally-specified matters, such as central government finances and constitutional amendments. The two houses have the same powers, but the Council of States’ power in the legislative process is subordinate to the House of the People. All legislative proposals have to be brought in the form of Bills before Parliament. A Bill as a draft statute becomes law after it has received the approval of both Houses of Parliament and the assent of the President.

There are 29 States and seven Union territories in the country (In June 2014, Telangana became the 29th state, consisting of the 10 north-western districts of Andhra Pradesh). The system of government in states closely resembles that of the Union territories. Each State Government has the freedom to draft its own laws state subjects. Laws passed by the national Parliament and other pre-existing central laws on subjects classified as central subjects are binding on all citizens.

## Approach to Climate Change

India is a non-Annex I country under the Kyoto Protocol and thus has no binding target for emissions reduction. It is an active participant in the Clean Development Mechanism (CDM) established by the Protocol. It had more than 1,479 registered CDM projects as of February 2014. In 2010 India released a GHG inventory for 2007 (not officially submitted to the UNFCCC), and stated that it would be the first developing country to publish its emissions inventory in a two-year cycle going forward. In 2012, India published its second communication to the UNFCCC, which includes an emissions inventory for the year 2000. The communication also includes a section on vulnerability assessment and adaptation: it presents climate change projections and impact assessments on water, forests, agriculture and human health. Consultations are under way for a third communication.

India has pledged to reduce the emissions intensity of its GDP by 20-25% below 2005 by 2025. Efforts include improved energy efficiency, increased use of renewable and nuclear power, expanded public transportation and energy pricing reform.

Rather than integrative binding legislation, India is developing a policy process to specifically target climate change. It adopted a “National Action Plan on Climate Change” (NAPCC) in 2008 outlining existing and future policies and programmes directed at climate change mitigation, adaptation and knowledge management. The focus of the NAPCC is on promoting understanding of climate change, and action on adaptation, mitigation, energy efficiency, and natural resource conservation while pursuing overall economic growth. In 2010, the Ministry of Environment and Forests at the Government of India released India: Taking on Climate Change – Post Copenhagen Domestic Actions, which evaluates the progress of the policies announced in the 2008 NAPCC.

The plan outlines eight national missions, which include the National Solar Mission, the National Mission for Enhanced Energy Efficiency, and the National Mission for a Green India (focused on the increasing of forest cover), as well as the National Mission on Strategic Knowledge (aiming at establishing a research fund). In addition, it contains the National Water Mission, the National Mission on Sustainable Habitat, the National Mission for Sustaining the Himalayan Ecosystem to help protect India’s water supply and the National Mission for Sustainable Agriculture.

The NAPCC was outlined by the Advisory Council on Climate Change, which is chaired by the Prime Minister and was reconstituted in November 2014. The Advisory Council has broad-based representation from key stakeholders, including government, industry and civil society and sets out broad directions for national actions in respect of climate change. The Council provides guidance on matters relating to co-ordinated national action on the domestic agenda and review of the implementation of the NAPCC including its R&D agenda.

The Council also provides guidance on matters relating to international negotiations including bilateral and multilateral programmes for collaboration, research and development. It is responsible for undertaking periodic reviews and annually reporting on the Missions' progress. A secretary-level Executive panel assists the Advisory Council and regularly monitors the implementation of the eight missions and strengthens inter-ministerial co-ordination.

Four new missions were announced under the NAPCC in 2014, and are pending the approval of the Prime Minister's Council on Climate Change – the National Wind Energy Mission; the National Human Health Mission; the National Coastal Resources Mission, and the National Waste-to-Energy Mission.

In 2012, the government approved the 12th Five-Year Plan for 2012–2017, which sets a target of 8.2% growth during that period. The Plan makes clear that high growth requires supporting growth in energy and that the government must take steps to reduce the energy intensity of production processes and also to increase domestic energy supplies as quickly as possible. The government has set up an Expert Group on Low Carbon Strategy for Inclusive Growth with the mandate to develop a roadmap for low carbon development. It recommended actions in sectors such as electricity, transportation, industry, oil and gas, buildings, and forestry, which are a central part of the Plan.

The government plans to develop 60 cities as solar cities during the 11th Five-Year Plan and include more during the 12th Five-Year Plan. Sanctions have been issued for 48 Cities and the master plans have been prepared for 44 cities, of which seven have been approved in principle by the Ministry of New and Renewable Energy for implementation. This includes preparation of a master plan to increase energy efficiency and renewable energy supply in the city, targeting a minimum 10% reduction in projected demand of conventional energy at the end of five years. This includes setting up institutional arrangements for the implementation of the master plan and awareness generation and capacity building activities.

In 2010, The Indian Network for Climate Change Assessment (INCCA) released a “4X4” assessment of the impacts of climate change on four sectors – water resources, agriculture, forests and human health – in four critical regions of India – the Himalayan region, the North East, Western Ghats and Coastal India. INCCA comprises 127 research institutions tasked with undertaking research on the science of climate change and its impacts on different sectors of the economy across the various regions of India. The Indian Space Research Organisation (ISRO) plans to launch a satellite to monitor GHG emissions later in 2015. Under the new Government elected in 2014, the Ministry of Environment and Forests has become the Ministry of Environment, Forests and Climate Change. In the COP20 in Lima in December 2014, the Indian Minister, Prakash Javadekar, announced that in ‘the next budget session (India is) going to introduce comprehensive climate legislation’.

### **Carbon Pricing**

In 2010, India created the National Clean Energy Fund, to finance and promote clean energy initiatives and fund related research. The corpus of the fund is built on a levy on coal, originally set at the rate of INR50 (USD0.81) per tonne, which will apply to both domestically-produced and imported coal. In order to increase the size of the National Clean Energy Fund (NCEF), the levy has been increased to INR200 (USD3.22) per tonne in the 2015 budget. This money will go into a National Clean Energy Fund that will be used for research, innovative projects in clean energy

technologies and environmental remediation programmes. Until late 2014, Viability Gap Funding of INR165.11bn (USD2.66bn) has been recommended from the NCEF for 46 projects.

### **Energy demand**

India's cabinet approved the National Mission on Enhanced Energy Efficiency (NMEEE) in 2010. The Mission includes several new initiatives – the most important being the Perform, Achieve and Trade (PAT) Mechanism, which will cover facilities that account for more than 50% of the fossil fuel used, and help reduce CO<sub>2</sub> emissions by 25m tonnes per year by 2014–2015.

A number of regulations and incentives promote energy efficiency and the use of renewable energy, at the Federal and the State levels. These include a revision in 2007 of the Energy Conservation Building Code that sets minimum requirements for building envelope components, lighting, HVAC, electrical systems and water heating and pumping systems.

The Government has approved National Mission on Enhanced Energy Efficiency (NMEEE) in August 2014 with an outlay of INR7.75bn (USD125m). It will enhance investments for better technology, creation of a venture capital with partial risk guarantee fund, appliance rating system and notification of a new building code for energy conservation.

### **Energy Supply**

The Electricity Act 2003 sought to better co-ordinate development of the power sector and to promote efficient and environmentally benign policies. The Act recognises the role of renewable energy in the country's National Electricity Policy (issued in 2005) and contains key provisions relating to renewable energy. This Act was supplemented by the 2006 National Tariff Policy, which stipulates that the targets for the Solar RPO (Renewable Purchase Obligation) shall be 0.25% by 2012-13 extending to 3% by 2022, which would require 34GW of installed solar capacity by 2022. The government has announced that it will raise the country's target for solar power five-fold from 20GW to 100GW by 2022. There are separate RPOs for other renewable sources.

The 2006 Integrated Energy Policy that received Cabinet approval in 2008 aims to meet energy demand "at the least cost in a technically efficient, economically viable and environmentally sustainable manner". It contains a number of policies that contribute to avoiding GHG emissions.

In 2007, the cabinet proposed an indicative target of 20% blending of biofuels, both for biodiesel and bioethanol, by 2017. A National Policy on Biofuels outlining the same target was approved in 2009. In order to avoid a conflict between energy security and food security, the policy promotes only fuels derived from non-edible plants, in waste, degraded or marginal lands. The policy offers farmers and cultivators a minimum support price for non-edible oil seeds, as well as a minimum purchase price for fuel.

The National Solar Mission is a large-scale solar energy programme that runs from 2010 to 2022 and promotes electricity generation from both small- and large-scale solar plants. Presently, wind farm projects qualify for Generation-Based Incentives (GBI) and a tax holiday as infrastructure projects, but accelerated depreciation under the Income Tax Act has been withdrawn from the 2013-14 Budget. Lots of local projects are also being implemented such as the Solar Photovoltaic Programme, the Solar Water Heating System Programme and the Village Electrification Programme.

Budget outlay for renewables has been increased by 65.8% (including direct hike in solar financing by INR10bn (USD161m) primarily for solar water pumps and setting up of ultra-modern solar power projects. The anti-dumping duty issue has been resolved as well with an impetus on "Make in India" solar manufacturing, and a priority for domestic content.

The government has also restored accelerated depreciation benefit to wind-power developers to ramp up wind generation capacity. Ad-hoc termination of this benefit in 2012 resulted in a nearly

50% fall in capacity installations in 2013. New directives from the Prime Minister's office have announced a target for wind-power of 65GW by 2022.

Other regulatory moves such as amendments to the Electricity Act 2003 and tariff policy have been finalised, allowing for the next wave of reforms such as competition in retail and Renewable Purchase Obligations (RPO) enforcement.

In September 2014 the minister of power, coal and renewable energy said the country is looking to invest USD100bn in renewable energy over the next five years; additionally, it was announced that 8,000-10,000MW of wind power can be generated per year. In 2013, A 'Green Energy Corridor' was announced, with USD7.9bn set aside to facilitate flow of renewable energy into the national grid. Various initiatives taken include: allocation of INR1bn (USD16.1m) for the development of 1MW Solar Parks on the banks of canals; allocation of INR4bn (USD64.5m) for launching a scheme for solar power driven agricultural pump sets and water pumping stations.

### **REDD+ and LULUCF**

The National Mission on Sustainable Habitats (NMSH) was approved as one of the eight National Missions under the Prime Minister's National Action Plan on Climate Change (NAPCC). A comprehensive strategic plan is being drafted to implement it.

The National Mission for Green India (GIM), also one of the eight National Missions under NAPCC, is being finalised. It aims to double the area to be taken up for afforestation/eco-restoration in the next 10 years, taking the total area to be afforested or eco-restored to 20m ha. This would increase the above and below ground biomass in 10m ha of forests/ecosystems, resulting in increased carbon sequestration of 43m tonnes CO<sub>2</sub>-equivalent annually.

In 2012, India held a national consultation on the preparedness for REDD+. A Technical Group has been set up to develop methodologies and procedures to assess and monitor REDD+ actions. Additionally, a National REDD+ Co-ordinating Agency has been approved in principle and methodologies for National Forest Carbon Accounting are being institutionalised.

A high level committee is currently reviewing environmental laws including the Forest (Conservation) Act of 1980 and the Indian Forest Act of 1927.

### **Adaptation**

India's population depends greatly on climate sensitive sectors – agriculture and forestry – for its livelihood. India's climate risk assessment in the second communication to the UNFCCC states that climate change, leading to recession of glaciers, decrease in rainfall and increased flooding, could threaten food and water security; put at risk natural ecosystems including species that sustain the livelihood of rural households; and adversely impact the coastal system due to sea-level rise and increased extreme events.

A National Adaptation Fund was set up in July 2014 to address the impacts of climate change and to develop climate resilient agriculture. INR1bn (USD16.1m) has been allocated for the "National Adaptation Fund" for climate change. India's National Bank for Agriculture and rural development (NABARD) has been accredited as a national implementation entity for the adaptation fund created by the UNFCCC. The National Mission for Sustaining the Himalayan Ecosystem focuses on evolving suitable management and policy measures to sustain and safeguard the Himalayan glacier and mountain ecosystem.

### **Sub-National Activities**

All Indian States have to prepare State Action Plans for Climate Change (SAPCCs) in line with the objectives of the National Action Plan on Climate Change (NAPCC) and ensure its implementation at state level. As of the end of 2014, 27 states and 4 Union Territories have prepared plans; the

National Steering Committee on Climate Change has endorsed the SAPCCs of nine states (Andhra Pradesh, Arunachal Pradesh, Madhya Pradesh, Manipur, Mizoram, Rajasthan, Sikkim, Tripura and West Bengal). The SAPCCs of Assam, Meghalaya and Orissa are being considered by the Expert Committee on Climate Change. Other states are at various stages of preparing the SAPCCs.

State governments are preparing State-specific Action Plans on Climate Change, which draw upon the National Action Plan and operationalise state-level measures in mitigation and adaptation. Delhi became the first state to complete and launch their Action Plans. Most other States are finalising their Action Plans.

### ***India: Legislative Portfolio***

<b>Name of Policy</b>	<b>The Finance Bill 2010-11 and the Clean Energy Cess Rules, 2010</b>
<b>Date</b>	April 1, 2010 and June 22, 2010, respectively
<b>Summary</b>	<p>The Finance Bill 2010-11 provided for the creation of a corpus called the National Clean Energy Fund, to invest in entrepreneurial ventures and research in the field of clean energy technologies. Subsequent to the budget announcement, the Central Board of Excise &amp; Customs (CBEC) issued a notification dated June 22, 2010 to notify the Clean Energy Cess Rules, 2010.</p> <p>The cabinet Committee on Economic Affairs has approved constitution of a 'National Clean Energy Fund' (NCEF) in the public account of India along with the guidelines as well as modalities for approval of projects to be funded from the Fund. An Inter Ministerial Group has been constituted to approve the projects/schemes eligible for financing under the National Clean Energy Fund, headed by the Finance Secretary and including representatives from Ministries of Power, Coal, Chemicals &amp; Fertilizers, Petroleum &amp; Natural Gas, New &amp; Renewable Energy and Environment &amp; Forests.</p> <p>The National Clean Energy Fund will be used for funding research and innovative projects in clean energy technologies. Any project/scheme for innovative methods to adopt to clean energy technology and research &amp; development shall be eligible for funding under the NCEF. Projects may be government sponsored or submitted by the private or public sector. Projects may take the form of loan or viability gap funding. Government assistance under the NCEF shall in no case exceed 40% of the total project cost.</p> <p>The IMG will identify/appoint appropriate professional agencies to monitor progress of NCEF funded projects.</p>

<b>Name of law</b>	<b>Electricity Act 2003</b>
<b>Date</b>	2003, amended in 2007
<b>Summary</b>	<p>The Electricity Act 2003 sought to better co-ordinate development of the power sector in India, providing a comprehensive framework for power development. Objectives include: consolidating laws relating to generation, transmission, distribution, trading and the use of electricity; promoting competition in the industry; and promoting efficient and environmentally benign policies.</p> <p>The Act recognised the role of renewable energy in the country's National Electricity Policy and in stand-alone systems. Key provisions of the Act in relation to renewable energy include (IEA):</p> <ul style="list-style-type: none"><li>• Preparation of a National Energy Policy and tariff policy based on optimal utilisation of resources such as coal, natural gas, nuclear substances or materials, hydro and renewable sources of energy</li><li>• The specification, by State Electricity Regulatory commissions, of the terms and conditions for the determination of tariffs, as guided by the promotion of cogeneration and the generation of electricity from renewable sources</li><li>• Promotion of cogeneration and the generation of electricity through renewable sources by providing suitable means for connectivity with the grid and sale, and by specifying for the purchase from such sources a percentage of the total consumption of electricity in the area of a distribution licensee.</li></ul>

<b>Name of law</b>	<b>Energy Conservation Act</b>
<b>Date</b>	2001, amended in 2010
<b>Summary</b>	<p>The act empowers central government to grant energy savings certificates to designated consumers whose energy consumption is less than the prescribed norms and standards and consumers whose energy consumption is more than the prescribed norms and standards shall be entitled to purchase the energy savings certificate to comply with the prescribed norms and standards.</p> <p>This Act requires large energy consumers to adhere to energy consumption norms; new buildings to follow the Energy Conservation Building Code; and appliances to meet energy performance standards and to display energy consumption labels.</p> <p>The 2008 National Climate Action Plan builds on this legislation to achieve its energy efficiency target. Under the Act, large energy-consuming industries are required to undertake energy audits and an energy-labelling programme for appliances has been introduced.</p> <p>The Act establishes the Bureau of Energy Efficiency to implement the provisions of the Act.</p> <p>The plan estimates that current initiatives based on the Energy Conservation Act of 2001, will yield 10,000MW of savings by 2012.</p>

## India: Executive Portfolio

<b>Name of Policy</b>	<b>National Electricity Plan (Generation)</b>
<b>Date</b>	January 2012
<b>Summary</b>	<p>This Plan aims to ensure reliable access to electricity. The Plan's 4th chapter deals with initiatives and measures for GHG mitigation, and aims to keep CO<sub>2</sub> intensity declining while massively expanding rural access and increasing power generation to meet the demands of a rapidly growing economy.</p> <p>The main initiatives are in technological improvements of power stations – increase of unit size, introduction of clean-coal technologies (super-critical technology; ultra-super-critical technology; CFBC- Circulating Fluidised Bed Combustion technology; IGCC- integrated gasification combined cycle technology); renovation and modernisation of thermal power plants; renovation, modernisation and uprating of hydro-electric power projects; retirement of old and inefficient thermal plants; generation and energy efficiency measures; efficient use of resources (including combined cooling heating and power); distributed generation; coal quality improvement.</p> <p>It also calls for the development of renewable sources, including solar, through the mandatory use of the renewable purchase obligation by utilities backed with a preferential tariff.</p>

<b>Name of Policy</b>	<b>National Policy on Biofuels</b>
<b>Date</b>	December 2009
<b>Summary</b>	<p>In October 2007, India's cabinet made a series of announcements regarding ethanol production and proposed an indicative target of 20% blending of biofuels, by 2017, both for bio-diesel and bio-ethanol.</p> <p>A National Policy on Biofuels outlining the same target was approved by government in December 2009. In order to avoid a conflict between energy security and food security, the policy promotes only fuels derived from non-edible plants, waste, degraded or marginal lands. The policy offers farmers and cultivators a minimum support price for non-edible oil seeds, as well as a minimum purchase price for fuel.</p> <p>The government is formulating a national policy on biofuels to introduce financial incentives, develop R&amp;D for production and commercialisation of ethanol and jatropha and establish a national biofuel development board.</p> <p>The policy set a uniform price of INR21.50 (USD0.35) per litre for ethanol. Since October</p>



2007, 5% blending of ethanol with petrol has been mandatory, increasing to 10% from October 2008.

<b>Name of Policy</b>	<b>National Action Plan on Climate Change</b>
<b>Date</b>	2008
<b>Summary</b>	<p>India's National Action Plan on Climate Change (NAPCC) outlines existing and future policies and programmes directed at climate change mitigation and adaptation.</p> <p>These National Missions will be institutionalised by respective ministries and will be organised through inter-sectoral groups that include, in addition to related Ministries, the Ministry of Finance and the Planning Commission, experts from industry, academia and civil society. The institutional structure will vary depending on the task to be addressed and will include the opportunity to compete on the best management model.</p> <p>The Nodal Ministry for each Mission has been tasked to evolve specific objectives spanning the remaining years of the 11th Plan and the 12th Plan period 2012–2013 to 2016–2017. Appropriate indicators and methodologies will be developed to assess both avoided emissions and adaptation benefits.</p> <p>The NAPCC recommends a minimum share of renewable energy in the national grid of 5% in 2010, subsequently to be increased by 1% every year to reach 15% by 2020.</p> <p>Energy Supply is dealt with through the National Solar Mission, which aims to make solar electricity cost-competitive with coal power and increase the share of solar energy in the energy mix by developing new solar technologies, both photovoltaic and solar thermal. The Mission recommends implementation in three stages, leading to an installed capacity of 20,000 MW by the end of the 13th Five-Year Plan in 2022. It also sets the objective of establishing a solar research centre, increased international collaboration on technology development, strengthening of domestic manufacturing capacity and increased government funding and international support.</p> <p>The Indian Solar Mission is a large-scale solar energy programme that will run from 2010 to 2022. Given the major policy focus of the Indian government to provide wider energy access in rural areas, the project promotes electricity generation from both small- and large-scale solar plants. The plan's long-term aim is to make solar energy competitive with fossil-based energy.</p> <p>The Solar Roadmap establishes specific installed capacity targets for three different periods of three and four years. It sets specific goals for increasing use of solar thermal technologies in urban areas, industry and commercial establishments.</p> <p>Under Phase One of the National Solar Mission, a reverse auction mechanism and rapidly falling solar PV module prices brought down the delivered cost of electricity from solar PV by more than half in three years.</p> <p>Under Phase Two of the Solar Mission, a capital subsidy in the form of Viability Gap Funding (VGF) allows project developers to finance their projects and sell electricity at the fixed price.</p> <p>In January 2008, the federal minister responsible for renewable energy announced that the Indian government would provide a subsidy for solar power plants to help develop renewable energy infrastructure. The subsidy consisted of INR12 (USD0.19) per kWh for solar photovoltaic power and INR10 (USD0.16) per kWh for solar thermal power fed to the electricity grid. A maximum capacity of 10MW from each Indian state and 5MW per developer was eligible under the scheme. Investors were not eligible. Developers sell electricity to state-run utilities and the incentives are paid to them based on the tariff the utilities provide. The incentives, for a period of 10 years, are over and above any financial assistance provided by the states.</p> <p>The power tariff for projects under phase two has been fixed as INR5.45 (USD0.09) per kWh. Half of the projects in Phase Two will have domestic content and be technology neutral.</p> <p>The government has also made available following incentives for solar power</p> <ul style="list-style-type: none"> <li>• Import of plant and machinery for the construction of solar power projects is</li> </ul>



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exempted from Additional Custom Duty and the total custom duty has come down from 9.35% to 5.15%

- Goods required for manufacturing of solar cells and modules have been exempted from Additional Custom Duty and the total custom duty has come down to 9.35%
- Excise duty exemption for all machinery required to set up a solar power generation project or facility
- Basic customs duty on solar lantern/lamps has been reduced from 10% to 5%

The Solar Mission also stimulates national R&D by providing innovation subsidies and scholarships to at least 1,000 young scientists and engineers, and by launching specific pilot projects aligned with the Mission's targets.

Key targets of the National Solar Mission:

- To create an enabling policy framework for the deployment of 20GW of solar power by 2022
- To ramp up utility grid-connected solar power including rooftop generation to 1,100MW by 2013, 10,000MW by 2017 and 20,000MW by 2022 through the mandatory use of the renewable purchase obligation by utilities backed with a preferential tariff
- To promote programmes for off-grid applications, reaching 1,000MW by 2017 and 20,000MW by 2022
- To achieve 15m m<sup>2</sup> solar thermal collector area by 2017 and 20m m<sup>2</sup> by 2022
- To deploy 20m solar lighting systems for rural areas by 2022
- Phase Two of the National Solar Mission has a target of 9,000MW grid-connected and 800MW off-grid solar power by 2017

Energy demand is addressed via two programmes:

The National Mission for Enhanced Energy Efficiency (NMEEE) is likely to achieve about 23m tons oil-equivalent of fuel savings in coal, gas, and petroleum products by 2014-15, along with an expected avoided capacity addition of over 19,000MW. The CO<sub>2</sub> emission reduction is estimated to be 98.55m tons annually. Building on this, the Perform, Achieve and Trade (PAT) scheme, a market-based mechanism, seeks to accelerate and incentivise energy efficiency in the large energy-intensive industries and envisages energy saving of 6.6m toe by 2014-15.

National Mission on Sustainable Habitat: The Plan seeks to promote energy efficiency as an essential component of urban planning. It calls for extending the Energy Conservation Building Code, and emphasises urban waste management and recycling, including power production from waste.

REDD+ and LULUCF aspects of the climate action plan are addressed through the National Mission for a Green India, which sets the following targets for 2022. Increased forest/tree cover on 5m ha of forest/non-forest lands and improved quality of forest cover on another 5m ha of non-forest/ forest lands (a total of 10m ha); Improved ecosystem services including biodiversity, hydrological services, carbon sequestration from the 10m ha of forest/non-forest lands mentioned above; Increased forest-based livelihood income of about 3m households, living in and around the forests; Enhanced annual CO<sub>2</sub> sequestration by 50m to 60m tonnes in the year 2022.

The plan also calls for stronger enforcement of automotive fuel economy standards, using pricing measures to encourage the purchase of efficient vehicles, and providing incentives for the use of public transportation.

The National Mission on Strategic Knowledge of Climate Change calls for the establishment of a Climate Science Research Fund, improved climate modelling capacities and increased international collaboration.

Other missions include the National Water Mission to improve efficiency in water use by 20% through pricing and other measures; the National Mission for Sustaining the Himalayan Ecosystem, with targets for biodiversity, forest cover and other ecological conservation in the Himalayan region; and the National Mission for Sustainable Agriculture, supporting adaptation to climate change in agriculture by developing climate-resilient crops and adapting agricultural practices, as well as the expansion of weather insurance mechanisms.

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<b>Name of Policy</b>	<b>Energy Conservation Building Code</b>
<b>Date</b>	2007
<b>Summary</b>	<p>The Energy Conservation Act of 2001 mandated the creation of the Bureau of Energy Efficiency (BEE), established in March 2002. The BEE was mandated with establishing an Energy Conservation Building Code (ECBC).</p> <p>A National building code (NBC) was developed by the Bureau of Indian Standards, and last revised in 2005. However, it does not specifically address energy efficiency issues. Rather, it promotes the use of new and innovative technologies and methods. This code serves as a building block to achieve the Sustainable Habitat mission of the National Climate Action Plan.</p> <p>The ECBC, launched in 2007, specifies the energy performance requirement of commercial buildings in India and sets minimum requirements for building envelope components, lighting, HVAC, electrical systems, water heating and pumping systems.</p> <p>It has been developed to account for five different climatic zones, particularly for envelope component requirements. It was not mandatory the first three years, to allow the necessary implementation capacity to be developed, but became so in 2010.</p> <p>The code will be mandatory for all new buildings (commercial buildings or complexes) with a connected load of 100kW or more, or a contract demand of 120 kVA or greater. It will also apply to buildings with a conditioned floor space of 1,000m<sup>2</sup> or greater.</p>

<b>Name of Policy</b>	<b>Tariff Policy 2006</b>
<b>Date</b>	2006, amended 2011
<b>Summary</b>	<p>In January 2006, the Ministry of Power announced the Tariff Policy, in continuation of the National Electricity Policy of 2005. The Tariff Policy included certain provisions regarding renewable energy and cogeneration.</p> <p>Under the Electricity Act 2003 and the National Tariff Policy 2006, the central and the state electricity regulatory commissions must purchase a certain percentage of grid-based power from renewable sources. Solar power is to comprise 0.25% of power purchases by states by 2013, and 3% by 2022</p> <p>The appropriate electricity commission is to fix a minimum percentage for purchase of energy from renewable and cogeneration sources, taking into account resource availability and impact on tariffs. Percentages for energy purchase were made applicable for tariffs to be determined by the State Electricity Regulatory Commission (SERC) by 1 April 2006.</p> <p>Procurement by distribution companies is to be done at preferential tariffs, determined by the appropriate commission, to encourage non-conventional energy technologies to eventually compete with conventional ones. Such procurement is to be done through a competitive bidding process.</p> <p>In January 2011, the Tariff Policy was amended to align with the National Solar Mission strategy. State electricity regulators to purchase a fixed percentage of solar power. This will be supported by a Renewable Energy Certificate (REC) mechanism.</p>

<b>Name of Policy</b>	<b>Integrated Energy Policy</b>
<b>Date</b>	2006
<b>Summary</b>	<p>At the direction of the Prime Minister and Deputy Chair of the Planning Commission, an expert committee was established to develop a comprehensive energy policy in 2004. The Integrated Energy Policy, released in August 2006, addresses all aspects of energy, including energy security, access and availability, affordability and pricing, efficiency and the environment.</p> <p>The Policy aims to meet energy demand “at the least cost in a technically efficient, economically viable and environmentally sustainable manner”. It contains a number of policies that contribute to avoiding GHG emissions. It received Cabinet approval in 2008.</p>

In relation to renewable energy, the policy proposed:

- The phase-out of capital subsidies by the end of the 10th Plan linked to creation of renewable grid power capacity
- Requiring power regulators to seek alternative incentive structures that encourage utilities to integrate wind, small hydro, cogeneration and so on into their systems, and the linking of all such incentives to energy generated as opposed to capacity created
- Requiring power regulators to mandate feed-in laws for renewable energy, where appropriate, as provided under the Electricity Act 2003. The policy also made a range of more specific recommendations in relation to particular renewable energy sources, including mini hydro, wind and wood gasification power

The Energy Co-ordination Committee (under the chairmanship of the prime minister) oversees implementation of the policy.

<b>Name of Policy</b>	<b>National Electricity Policy</b>
<b>Date</b>	2005
<b>Summary</b>	Among other goals, this policy stressed the need for the promotion of non-conventional energy sources.  The policy noted the need to reduce the capital cost of projects based on non-conventional and renewable sources of energy; stressed the importance of promoting competition among renewables projects; provided for state electricity regulatory commissions to increase progressively the share of electricity that must be purchased from non-conventional resources, and further provided that the purchase of such electricity should be conducted via a competitive bidding process; suggests tax neutrality across energy sources; states that “maximum emphasis” would be put on the development of hydro-power. Use of thermal power could be made cleaner by using low-ash coal, improving lignite mining, and through increased use of natural gas and nuclear power. It also calls for the use of the most efficient technologies and more funding for R&D; emphasises the need for conservation and demand-side management including a national awareness campaign.

<b>Name of Policy</b>	<b>National Auto Fuel Policy</b>
<b>Date</b>	2003
<b>Summary</b>	The National Auto Fuel Policy (2003) mandated that all new four-wheeled vehicles in 11 cities meet Bharat Stage III emission norms for conventional air pollutants (similar to Euro III emission norms) and comply with Euro IV standards by 2010.

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