India

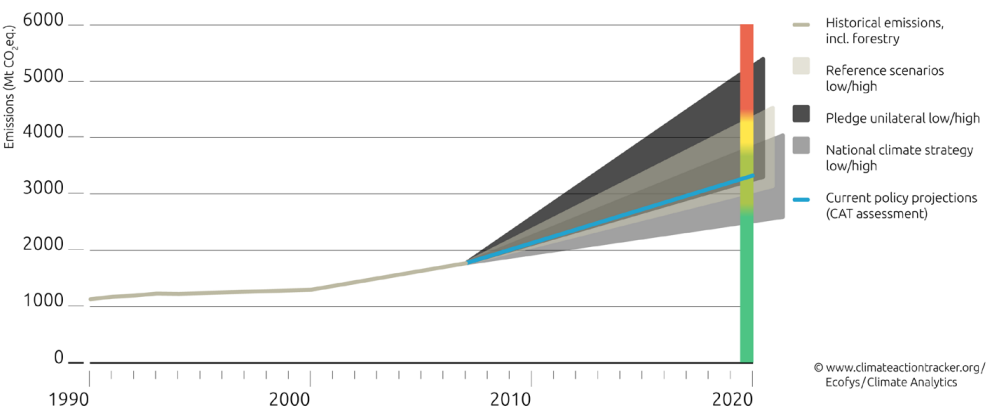
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Rating



Assessment

India pledged to reduce the emission intensity of its GDP by 20 to 25% by 2020 in comparison to the 2005 level. The national estimation of India of the quantified target will be in line with current policies, although the BAU range is large and economic growth uncertain.



Pledge description

India has pledged to reduce the emission intensity of its GDP by 20 to 25% by 2020 in comparison to the 2005 level. Emissions from the agriculture sector are not covered in this target. The target was proposed during the Copenhagen negotiations and submitted to the Copenhagen Accord on 30 January 2010. The quantification, based on different scientific literature, covers a wider range of between 3,254 and 5,280 $MtCO_2e$ in 2020, resulting from different assumptions and base years. India provided an official quantification of emissions as a result of its pledge, based on annual GDP growth projections of 8% and 9%. These projections lead to between 3,500 and 4,000 $MtCO_2e$ in 2020 (Planning Commission Government of India 2011), which is in the range of the values derived from scientific literature.

Convention	
Copenhagen pledge	Intensity: -20% / -25%
Reference for pledge	2005
Conditions	none
Long term goal(s)	none

Current trend description

Currently implemented policies are projected to lead to an emission level of 3,308 $MtCO_2e$ in 2020 and 3,626 $MtCO_2e$ in 2030, including emissions from LULUCF according to our estimation. Land use change constituted a sink in 2007 and reduced emissions from non-land use sectors by 9%. We assume this share will remain constant until 2020.

Total emissions have been growing steadily since 1990. The overall growth slowed down around the year 2000 as land use moved from being a small source of emissions in the first inventory year, 14 $MtCO_2e$ in 1994, to a large sink, with removals of 223 $MtCO_2e$ in 2000. This sink effect has since reduced somewhat; in the last available inventory land use represented removals of 175 $MtCO_2e$.

The Five Year Plans provide the basic direction for government activities and address all sectors and policy areas in India. Since last year, the government has been working on the implementation of the 12th Five Year Plan, which will also focus on climate change activities. However, since details are not clear yet, we focus the analysis on existing instruments that were implemented in the course of the 11th Five Year Plan.

On the federal level, India implemented two major renewable energy-related policies. The 'strategic plan for new and renewable energy' provides a broader framework while the 'solar mission' contains capacity targets for renewables by 2017 and 2022 (Government of India 2011). The renewable capacity targets from the solar mission for 2017 are 27.3 GW wind, 4 GW solar, 5 GW biomass and 5 GW other renewables, and for 2022 they are 38.5 GW wind, 20 GW solar, 7.3 GW biomass and 6.6 GW other renewables.

Achieving the targets depends on financial and structural support. This is expected to be partly provided by the state level feed-in schemes and renewable portfolio standards. Given that electricity demand is expected to further grow in future and the prevailing dominance of other energy carriers, such as coal, the total impact of these policies and targets is low compared to its potential.

Under the 'National Mission on Enhanced Energy Efficiency' India implemented the 'Perform, Achieve and Trade (PAT)' Mechanism. The scheme covers the largest industrial and power generation facilities, which in total cover more than 50% of fossil fuel use in India. The target is to achieve a 4% to 5% reduction of energy consumption of the participating facilities in 2015. Sixty percent of this is to come from the power sector and 40% from the industry sector. The effect after 2015 heavily depends on the rules governing the continuation of the scheme, which have yet to be decided.

In addition, biofuel legislation sets a target of 20% blending of ethanol and biodiesel in 2017.

Date of pledge: January 2010

Assumptions

Pledge

India has provided their own quantification in the Interim report of the Expert Group on Low Carbon Strategies for Inclusive Growth. In addition we derived a range by comparing various sources, including the Timer model, WEO 2009 data, McKinsey 2010, Stern 2010, TERI 2009 data and Moltmann et al. (2010) as compiled for den Elzen et al. (2010).

Current trends

The current trend projections are based on the World Energy Outlook 2012 Current Policy scenario projections for CO_2 only until 2030 (IEA 2012) and was combined with the US EPA non-CO_2 emission projections until 2030 (US EPA 2012). For historical data we used India's inventory data submitted to the UNFCCC (for 1994) as well as the 2nd national communication (Ministry of Environment and Forests 2012) that contained data for 2000 and 2007.

Sources

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