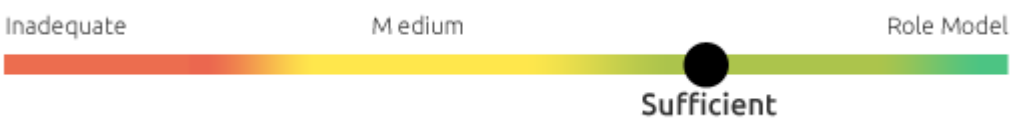
CLIMATE ACTION TRACKER

South Korea

History: 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011

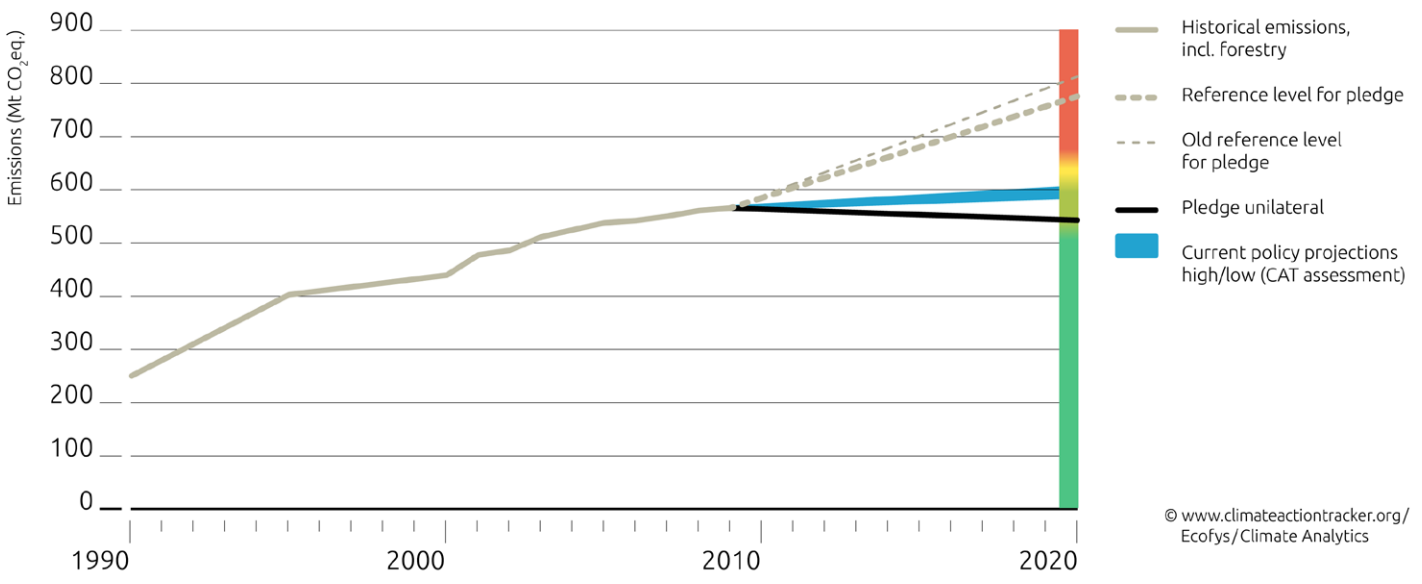
Page last updated: 20th November 2013

Rating



Assessment

South Korea pledged to reduce to reduce its emissions by 30% below reference emissions in 2020. With current policies South Korea is not expected to meet the pledge, even though the policy package provided is very innovative and exceptional for non-Annex I countries.



Pledge description

South Korea has agreed to reduce its emissions by 30% below reference emissions in 2020. The target was proposed in November 2009 and submitted to the Copenhagen Accord on 25 January 2010.

Convention	
Copenhagen pledge	-30%
Reference for pledge	BAU
Conditions	none
Long term goal(s)	none

In its 3rd National Communication (2012), South Korea lowered its BAU projections to 776 $MtCO_2e$ in 2020 from projections provided earlier of 813 $MtCO_2e$. It notes that "this recalculation does not change the 30% reduction goal rate". South Korea is the only country that increased the stringency of its pledge by correcting BAU emissions downwards. Under the new BAU projections the pledge would result in emissions of 543 $MtCO_2e$ in 2020.

Current trend description

Current implemented policies are expected to lead to an emission level of 613 to 627 $MtCO_2e$ in 2020 and 726 to 743 $MtCO_2e$ in 2030 excluding emission from LULUCF. Emissions from land-use change reduced emissions by 20 $MtCO_2e$ in 2011 and had historically been stable at between -19 and -20 $MtCO_2e$.

South Korea's emissions have more than doubled between 1990 and 2010. Emissions steeply increased in the early 1990s. Growth then continued at a slower pace. Growth is currently continuing to slow. While South Korea's energy intensity has been slowly declining, it is still very high, and will foreseeably remain above the OECD average in the coming years. South Korea has a high share (31%) of nuclear energy.

South Korea successfully implemented its Green Growth Strategy, which provides a very comprehensive policy package targeting all policy areas including climate change. One of the key policies is the cap and trade scheme scheduled for 2015, which is already operating (under the name "Target Management System") to prepare companies for participation.

South Korea introduced the Target Management System (TMS) in 2012. Sixty percent of total emissions are currently covered under the TMS. The full implementation will start in 2015 and cover all installations in the industrial and power sectors with annual emissions higher than 25 $ktCO_2e$. The absolute emission cap of the ETS is expected to be in line with the pledge. However, it is not yet clear what percentage of total national emissions will be covered under the system. Since there are still uncertainties about the measuring, reporting and verification (MRV) of emissions, we assume that the target of the scheme will not be fully achieved, resulting in a reduction range between 105 and 120 $MtCO_2e$, based on the national BAU.

The Renewable Portfolio Standard (RPS) was introduced in 2012 and is replacing a previous feed-in scheme. The new standard is obliging suppliers to meet annual generation targets from renewable energy. They begin with 2% and increase up to 12% in 2022 (Kemco, 2013). Since South Korea has already started implementing REN technologies but is still dependent on coal, the reduction effect is low compared to its potential.

For the residential building sector, the government has set up a subsidy program that is targeting one million homes to be supplied by renewable sources such as geothermal, solar PV, small wind or thermal solar. Fifty percent of the costs for each household will be subsidised. So far, the annual increase rate of the scheme, as well as the supporting modalities, seem to be successful and therefore we assumed that the target will be reached.

Both the RPS and the million green homes measures are expected to reduce emissions by 25 $MtCO_2e$ in 2020.

Date of pledge: January 2010

Assumptions

Pledge

Historical emissions are taken from the national communication. Reference emissions were taken from the 3rd National Communication (Republic of Korea, 2012).

Current trend

The current trend projections are based on its inventory data submitted to the UNFCCC (Republic of Korea, 2012) and calculation methods developed by the CAT team and as in Roelfsema et al. (2013). Bottom up quantification was done for the upcoming ETS system (UNFCCC 2012), the one million green homes (Kemco, 2013b) and the new renewable portfolio standard (Kemco, 2013b). For our analysis of the ETS, we assume coverage to be the same as for the TMS.

Sources

Kemco (2013a). Background information on Renewable Portfolio Standards (RPS)

Kemco (2013b) Background information on 1 million green homes

Republic of Korea (2012). South Korea's 3rd National Communication to the UNFCCC

Republic of Korea (2010). South Korea's pledge to the Copenhagen Accord. Compiled in: Compilation of information on nationally appropriate mitigation actions to be implemented by Parties not included in Annex I to the Convention, UNFCCC (2011)

Roelfsema et al. (2013). Assessment of climate and energy policies of major emitting countries. PBL Netherlands Environmental Assessment Agency. Pub No. 1096.

UNFCCC (2012). Presentation about target management system

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