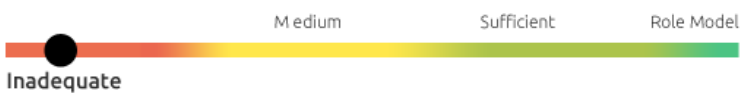
CLIMATE ACTION TRACKER

EU

Page last updated: 8th December 2014

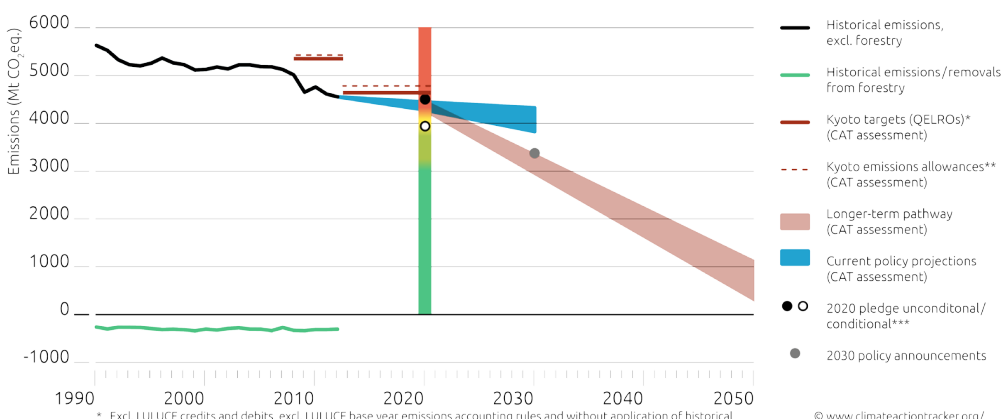
Rating



Assessment

In October 2014, the European Council adopted a new set of climate and energy targets for 2030. Among those, the EU put forward a binding target of at least 40% aggregate domestic emissions reductions below 1990 levels by 2030. Whilst within the range of least-cost global pathways for limiting warming below 2°C for the EU-28, the 40% goal is not consistent with a wide range of approaches to fair and equitable emission reductions for the EU28[1]. Currently implemented policies are projected to reduce emissions by 23-35% below 1990 levels and hence do not - yet - put the EU on a trajectory towards meeting either its 2030 or 2050 targets.

The EU's 2009 Copenhagen pledge is to reduce emissions by 20% below 1990, however since then it has committed to the second commitment period of the Kyoto Protocol (2013-2020) with a QELRO[2] equivalent to 20% reduction from base year emissions in 1990 averaged over the second commitment period. Emissions of industrial GHGs in 2012 were approximately 19% below 1990 levels (the first commitment period was approximately 16% below 1990). Currently implemented policies are estimated to lead to a 22-27% reduction below 1990 levels, meaning that the EU is on track to significantly over-achieve its Kyoto target. However, with current policies the EU is not on track to meet its more ambitious conditional target of 30% emissions reduction below 1990 levels by 2020. The latter target is more consistent with least-cost global pathways for limiting warming below 2°C for the EU-28 than either the Kyoto second commitment period target or the Copenhagen Pledge[1].



* Excl. LULUCF credits and debits, excl. LULUCF base year emissions accounting rules and without application of historical threshold on emissions allowances in 2020 under the Doha decision.
** Incl. LULUCF credits and debits, incl. LULUCF base year emissions accounting rules and application of historical threshold on emissions allowances in 2020 under the Doha decision.
*** Emissions level in 2020 resulting from unconditional/conditional pledge. This differs from the Kyoto pathways as it depicts final 2020 levels whereas the Kyoto pathways considers the average level of emissions over the second commitment period (2013-2020).

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Pledge and post-2020 contribution

Under the Copenhagen Accord the EU proposed to decrease emissions by -20 to -30% below 1990 by 2020 and by -80 to -95% below 1990 by 2050. The more ambitious -30% reduction by 2020 was linked conditionally to other developed countries commit to comparable efforts and developing countries contribute according to their capabilities.

Kyoto Protocol	
Member of KP CP1 (2008-2012)	yes
Member of KP CP2 (2013-2020)	yes
KP CP1 target (below base year)	-8%
KP CP2 target (below base year)	-20%
Convention	
Copenhagen pledge	-20%/-30% by 2020
Reference year for pledge	1990
Conditions (for higher pledge level)	Developed countries commit to comparable efforts and developing countries contribute according to capabilities.
National goals	
Long-term goal(s)	≥40% by 2030
	80-95% by 2050

In May 2012, the EU submitted a provisional QELRO[2] (Quantified Emission Limitation or Reduction Objective) level of 80% of 1990 emissions levels for the second commitment period of the Kyoto Protocol, to be fulfilled jointly by the European Union and its Member States. This QELRO is also inscribed in the amendments agreed in Doha in December 2012. These amendment have yet to be ratified by the EU.

EU leaders have endorsed the objective of reducing Europe's GHG emissions by 80-95% relative to 1990 levels by 2050, conditional to necessary reductions to be collectively achieved by developed countries in line with the Intergovernmental Panel on Climate Change (IPCC).

EU leaders agreed in October 2014 on a 2030 climate and energy policy framework for the EU (EC, 2014; EEA, 2014), putting forward a legally binding EU target of at least a 40% reduction in domestic emissions by 2030 below 1990, with the other main building blocks of the 2030 policy framework for climate and energy, as proposed by the European Commission in January 2014 (EC, 2014).

EU clarified that its accounting rules under the UNFCCC and post-2012 EU energy and climate package are more stringent than the current rules under the Kyoto Protocol:

- A single 1990 base-year is used for all parties and gases.
- It does not recognize surplus AAUs (Assigned Amount Units) from the first commitment period of the Kyoto Protocol.
- Emissions from international aviation are included in the target and the legislation foresees the need to include international maritime emissions, if no progress is achieved to include these at the international level.
- Emissions and removals from LULUCF (Land Use, Land-Use Change and Forestry) are not included in the achievement of the reduction target; the LULUCF sector is accounted for under the Kyoto Protocol according to the relevant decisions made in Durban. However, the EU target may account for the LULUCF emissions at a later stage, given that the legislation already foresees that accounting rules should ensure permanence and environmental integrity.

In addition, the EU supports proposals to remove emissions from natural disturbances and to count removals from harvested wood products. This has not been accounted for here, but could lead to higher credits (or lower debits). The inclusion of international aviation into the European emissions trading scheme is the first effort to regulate emissions from this sector globally. We did not qualitatively evaluate the impact of this on EU28's 2020 target.

Current policy projections

Emissions in the EU28 have been on a decreasing trend since 1990. In 2012, emissions (excl. LULUCF) were 19% below 1990 levels. After a steep decline in 2009 due to the recession and an upward spike following the recovery in 2010, they dropped again until 2012.

According to our analysis, the future projections with currently implemented policies continue the past downward trend with similar, or slightly reduced, reduction rates each year, depending on which end of the range one is looking at. While emission decreased with an average of 0.9% per year between 1990 and 2012, emissions are projected to decrease between 0.5% and 1.2% per year up to 2020, and between 0.1% and 1% per year until 2030. Emissions are estimated to be between 4,115 $MtCO_2e$ and 4,374 $MtCO_2e$ (a 22-27% reduction below 1990) in 2020 and between 3,681 $MtCO_2e$ and 4,317 $MtCO_2e$ (23-35% below 1990) in 2030.

Current policy projections include all major EU policies implemented, including the EU ETS, the Effort Sharing Directive and a wide range of other EU wide regulations influencing GHG emissions such as the renewable energy directive. It also includes the most important national policies. Several new policy developments took place at EU level since last year's assessment. These include binding emission targets for new car and van fleets, a new regulation on fluorinated gases, and further implementation of the Ecodesign legislation for boilers and water heaters (EEA, 2014). With these existing policies, the EU still has one of the most comprehensive climate packages globally.

The framework for the EU on the 2020 timeframe has been its '2020 energy and climate package', which lays the basis for the 20% by 2020 from 1990 levels Copenhagen Accord pledge. Framed as the 20 -20 -20 targets it contains a 20% RE target for renewable energy, a 20% target for RE and a 20% target. Analysis has shown that these targets are internally inconsistent; implementing the RE as well as the EE target leads to an emission reduction of 30% rather than 20% (Höhne et al. 2011). For 2020 the EU is on track to meet its emissions target (current projections foresee an emission reduction between 22% and 27%), also its renewables target, but not yet the energy efficiency target.

The main development in the EU in 2014 has been the development of a framework for 2030. Under the EU '2030 framework for climate and energy policies', the European Commission proposed a package of targets, including the above mentioned GHG target of 40%, a renewable energy target of 27% and an energy savings target. The energy savings target for 2030 was introduced following a review of the Energy Efficiency Directive and originally included the proposal to reduce energy use by 30%. However the European Council then only endorsed a target of 27% which will be reviewed in 2020 to re-consider 30% target originally proposed by the European Commission (EC, 2014). Given that the GHG target of 40% emission reductions below 1990 was defined based on the assumption of a 30% energy efficiency target, this potentially undermines the achievement of the GHG target.

Under the EU ETS, one of the most important instruments of the EU to reach its emission target in 2020 and 2030, a surplus of emission allowance of app. 1,8 GtCO2 had been accumulated by the end of 2012 (EEA 2014). This surplus is expected to grow to 2,6 GtCO2 until 2020 according to the EUs own calculations. This is larger than the EU's ETS cap for the year 2013. The introduction of this surplus could dilute the 40% GHG target by 7% in 2030 if theses allowances are increasingly used until 2030 (Höhne et al 2013). The EU agreed to introduce a so called market stability reserve that aims to address this surplus issue. It is thus important for the achievement of the 40% GHG target that a robust market reserve is created that allows the EU to stay in line with its target.

Date of pledge: May 2012

Data sources and assumptions

Pledge

Targets for 2020 were calculated from the most recent national inventory submissions (CRF, 2014). We calculated EU's LULUCF accounting quantities for the period 2014-2020 for afforestation, reforestation and deforestation using the current Kyoto rules, and for forest management using a net-net approach with a projected reference level for 2014-2020. Some EU countries have included a background level for natural disturbances.

The EU provided historical data on forest management and afforestation, reforestation and deforestation data for many of its member states.

Where members did not submit data it was - wherever available - compiled using the time series data from the national inventories (CRF, 2014).

Current policy projections

The current policy projections are based on the EEA projections, published in June 2014 (EEA, 2014) and the PRIMES/GAINES reference scenario[3]. The two scenarios were chosen because they represent a 'bottom-up' and a 'top-down' manner of evaluating the impact of policies in the EU. While the EEA gathers scenarios on the implementation of existing measures as put forward by member states, the PRIMES model performs a separate modelling exercise to estimate the effects of policies.

For the upper end of current policy projection for 2020 and 2030 we used the EEA's "with existing measures" scenario (EEA 2014), which only covers policies already implemented by Member States. Data was available until 2020 from the EEA directly, until 2030 we were only able to identify an overall % wise GHG emission reduction for 2030 for total GHG emissions excluding LULUCF but including international aviation. Using the assumption that emissions from international aviation stay the same in the period between 2021 and 2030 as in 2020, we estimated the total GHG emission excluding LULUCF and excluding international aviation. The figures were then harmonized the latest inventories submitted to the (UNFCCC EEA/DG Climate 2014).

For the lower end of the current policy projections for 2020 and 2030 we used the Commission's 2013 "baseline with adopted measures" climate policy scenario based on the PRIMES and GAINS models 2013 (EC 2013). This scenario was also harmonized with the latest inventories submitted to the UNFCCC (EEA/DG Climate 2014).

One major difference between the lower and the upper end of the scenarios is that while the PRIMES model considered the full impact of the Energy Efficiency Directive, this has not been fully taken into account by the projections submitted by member states (EEA 2014). According to the EEA (EEA 2014) member states might not have taken into account further regulations that are included in the PRIMES model evaluation, including the revision or the Energy Performance Buildings Directive (EPBD) and regulations on the CO2 emissions from cars.

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[1] Global Least cost scenarios aim at minimising the global mitigation costs given a certain climate target and hence emission reductions in individual regions assume all regions have a similar domestic capability to response, so does not account for the needs for climate finance, technology and capacity, nor different equity principles . These scenarios commonly simulate a global carbon market, which minimise the cost of abatement, under the assumption of perfect competition. They make no assumption on fairness.

[2] The QELRO, expressed as a percentage in relation to a base year, denotes the average level of emissions that an Annex B Party could emit on an annual basis during a given commitment period.

[3] "The Reference scenario 2013 includes policies and measures adopted in the Member States by April 2012 and policies, measures and legislative provisions (including on binding targets) adopted by or agreed in the first half of 2012 at EU level in such a way that there is almost no uncertainty with regard to their adoption. This concerns notably the Energy Efficiency Directive, on which political agreement was reached by that time.

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