CLIMATE ACTION TRACKER

History: 2018 | 2016 | 2015 | 2014 | 2013 | 2011

Russian Federation

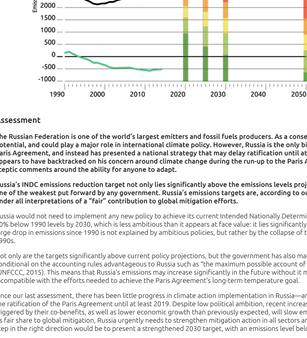
Page last updated: 6th November 2017

Rating

CRITICALLY INSUFFICIENT | HIGHLY INSUFFICIENT | INSUFFICIENT | 2°C COMPATIBLE | 1.5°C PARIS AGREEMENT COMPATIBLE | ROLE MODEL

Current Rating: **CRITICALLY INSUFFICIENT**

Basic | Intermediate | Complex



Assessment

The Russian Federation is one of the world's largest emitters and fossil fuels producers. As a consequence, it has a large mitigation potential, and could play a major role in international climate policy. However, Russia is the only big emitter that has not yet ratified the Paris Agreement, and has presented an international strategy that may delay ratification until at least 2019. President Putin also appears to have backtracked on his concern around climate change during the run-up to the Paris Agreement, recently reverting to more sceptic comments around the ability for anyone to adapt.

Russia's INDC emissions reduction target not only lies significantly above the emissions levels projected under current policies but also is one of the weakest put forward by any government. Russia's emissions targets are, according to our analysis, "Critically insufficient" under all interpretations of a "fair" contribution to global mitigation efforts.

Russia would not need to implement any new policy to achieve its current Intended Nationally Determined Contribution (INDC) target of 25 to 30% below 1990 levels by 2030, which is less ambitious than it appears at face value: it lies significantly above current policy projections. The large drop in emissions since 1990 is not explained by ambitious policies, but rather by the collapse of the centrally planned economy in the early 1990s.

Not only are the targets significantly above current policy projections, but the government has also made it clear that their achievement is conditional on the accounting rules advantageous to Russia such as "the maximum possible account of the absorbing capacity of forests" (UNFCCC, 2015). This means that Russia's emissions may increase significantly in the future without it missing its INDC emissions target, which is incompatible with the efforts needed to achieve the Paris Agreement's long-term temperature goal.

Since our last assessment, there has been little progress in climate action implementation in Russia—and the new national strategy may delay the ratification of the Paris Agreement until at least 2019. Despite low political ambition, recent increases in investments in renewable energy, triggered by their co-benefits, as well as lower economic growth than previously expected, will slow emissions growth. However, to contribute its fair share to global mitigation efforts, Russia needs to strengthen mitigation action in all sectors and reduce its high carbon-intensity. A first step in the right direction would be to present a strengthened 2030 target, with an emissions level below current policy projections.

Pledges and targets

Paris Agreement targets

On 31 March 2015, the Russian Federation submitted its 2030 Intended Nationally Determined Contribution (INDC) proposing to reduce emissions 25% to 30% below 1990 levels by 2030 (UNFCCC, 2015). The Russian government officially signed the Paris Agreement (PA) on April 22, 2016. The ratification of the agreement and thus the submission of the definitive Nationally Determined Contribution (NDC) are still pending.

Our best estimate of the target emissions levels that Russia's INDC entails are 3.2 to 3.3 $GtCO_2e$ in (8–13% below 1990 levels, excluding LULUCF). These levels were calculated using the most recent projected emissions for the LULUCF sector in 2030 (Ministry of Natural Resources and Ecology of the Russian Federation, 2015). Our main assumption for this calculation is that Russia will include the LULUCF sector both in the base year and target year, which would allow for much higher emissions in the target year compared to a situation in which the target excluded LULUCF emissions. This assumption arises from the INDC statement, according to which the 2030 target "is subject to the maximum possible accounting of the absorbing capacity of forests" (UNFCCC, 2015), which adds considerable uncertainty to the 2030 target emissions levels. Greater transparency around the accounting rules for the LULUCF sector in the NDC submission would enable us to calculate a more precise estimate of emissions level (excluding LULUCF) in 2030 required for Russia to achieve its INDC target.

2020 Pledges

In the Copenhagen Accord from 2009, the Russian Federation pledged to limit emissions by 15–25% below 1990 levels by 2020 (Russian Federation Government, 2010). This implies an emissions level of 2.7 to 3.5 $GtCO_2e$ in 2020. In comparison to 2014 this represents an 8–38% increase in emissions.

In September 2013, the Russian Federation adopted Decree No. 752 On Reducing Greenhouse Gas Emissions, which set a target of reducing emissions 25% below 1990 levels by 2020. That target was reaffirmed in Decree No. 504-p in April 2014 (Russian Federation, 2014a) and is in line with the lower end of the pledge's range, which we have rated as "inadequate".

Due to lack of clarity regarding the inclusion of the LULUCF sector in the 2020 target, in our assessment we show estimates of the resulting 2020 target emissions levels for both, excluding, and including LULUCF in the base year. Under these scenarios, the 2020 target emissions level would be 2.7 to 3.5 $GtCO_2e$, which is 8-38% above 2014 non-LULUCF emissions.

Long Term Goal

In previous assessments, the CAT had included a long-term target for Russia of cutting GHG emissions by at least 50% below 1990 levels by 2050, based on the announcement made by the former Russian president Medvedev at the L'Aquila G8 Summit in 2009 (Yale Center for Environmental Law, 2011). To date, no official national document has confirmed the Russian Federation's intention to continue pursuing its long-term target and, with Russia's membership in the G8 group having been suspended since 2014, there is no reason to expect this target to be included in any national legislation in the foreseeable future. Taking into account the former, the CAT has decided to remove Russia's long-term target from its country assessment as well as from the calculations of the global aggregate commitments.

Kyoto Protocol (KP)	
Member of KP CP1 (2008–2012)	Yes
Member of KP CP2 (2013–2020)	No
KP CP1 target (below base year)	0% below 1990
Copenhagen pledge	
2020 target	15–25% below 1990 by 2020
Conditions	a) Appropriate accounting of the potential of Russia's forestry sector, b) The undertaking by all major emitters of legally binding obligations to reduce emissions
Paris Agreement target	
Ratified	No
2030 target	25–30% below 1990 by 2030
Coverage	Economy-wide, incl. LULUCF
LULUCF	Target is subject to "the maximum possible account of absorbing capacity of forests"
Long term goal(s)	
None	

Fair share

We rate Russia's 2020 and 2030 emissions targets "Critically Insufficient." The "Critically Insufficient" rating indicates that Russia's climate commitment is inconsistent with a warming of over 4°C. If all countries were to follow Russia's approach, warming would exceed 4°C. This means Russia's climate commitment is not in line with any interpretation of a "fair" approach to the former 2°C goal, let alone the Paris Agreement's 1.5°C limit. It must be noted that if additional information on the LULUCF sector accounting rules were to be provided in the NDC, our 2030 target emissions level estimates could change.

The CAT ratings are based on climate commitments in tINDCs. If the CAT were to rate Russia's projected emissions levels in 2017 under current policies, we would rate Russia "Highly Insufficient," indicating that Russia's current policies are not consistent with holding warming to below 2°C, let alone limiting it to 1.5°C as required under the Paris Agreement, and are instead consistent with warming between 3°C and 4°C. If all countries were to follow Russia's approach, warming could reach over 3°C and up to 4°C. This means Russia's current policies are not in line with any interpretation of a "fair" approach to the former 2°C goal, let alone the Paris Agreement's 1.5°C limit.

For further information about the risks and impacts associated with the temperature levels of each of the categories click here.

Current policy projections

After the collapse of the Soviet Union in the 1990s, emissions in Russia dropped substantially, reaching a historic low of around 2.1 $GtCO_2e$ (excluding LULUCF) in 1998, which is equivalent to 41% below 1990 levels. Since then, emissions have increased steadily and, contrary to what is needed to achieve the Paris Agreement goal, are expected to continue growing until at least 2030. However, Russia's emissions targets, which use 1990 as a reference, allow national emissions to continue an upward trend without missing its international commitments. According to our latest estimates,[1] currently implemented policies will lead to emissions of 2.6 $GtCO_2e$ in 2020 and 2.7–2.8 $GtCO_2e$ in 2030 (both excluding LULUCF). This represents a decrease in emissions from 1990 levels of 28% in 2020 and 23–26% in 2030, all well below the national mitigation targets.

Our current policy projections include the Russian Federation's main pieces of climate-related legislation, namely the 2009 Climate Doctrine, the Energy Strategy for 2030, the Decree on Measures to Stimulate the Reduction of Air Pollution from Associated Gas Flaring Products, the 2013 Presidential Decree on reduction of GHG emissions, and the 2014 Decree on the Action Plan for 2020, which have a clear focus on energy production and demand. These documents define the main national mitigation targets, which include a 2.5% share of renewables in the power sector for 2020 (excluding large hydro), and a target utilization rate of 95% for associated petroleum gas by 2019.[2] A detailed description of the main national climate-related policies and targets included in our current policy projections can be found in our 2016 country assessment for Russia. We note here that although the government has put in place heavy fines for gas flaring above the 5% limit, enforcement has been poor with many exemptions, rendering the impact of the policy negligible (Korppoo & Kokorin, 2015).

Since our last assessment in 2016, there has been little progress in climate action implementation in the Russian Federation. On the contrary, President Vladimir Putin seems to have taken a U-turn in his public position regarding climate change and the Paris Agreement in recent months: while, during the signature ceremony of the Agreement in 2015 he declared that "...the quality of life of all people on the planet depends on solving the climate problem," in recent statements he has openly expressed a return to his pre-Paris scepticism at the possibility of preventing dangerous climate change with statements such as "the issue is not stopping it [climate change]... because that's impossible, since it could be tied to some global cycles on Earth or even of planetary significance. The issue is to somehow adapt to it." (CNBC, 2017).

The government's lack of political will has resulted in the Russian Federation currently being the only big emitter that has not yet ratified the Paris Agreement. Contrary to what is needed to achieve the agreement's objective, Russia has presented a national strategy that may delay ratification until at least 2019 (Government of the Russian Federation, 2016). The strategy, summarised in Order N°2344, Nov 2016, includes a number of planned studies of the ratification of the Paris Agreement would affect the national economy, which would have to be ready before the final decision regarding the ratification is taken. The timeline outlined in the decree would result in a draft presidential decree for approving the 2030 emissions targets being prepared as late as in 2019.

Nonetheless, recent increases in renewable energy investments in Russia, and lower projected economic growth, will slow emissions growth, independent of the ratification of the Paris Agreement. Installed renewable power generation capacity increased to 53.5 GW by the end of 2015, which is equivalent to 20% of the country's total power generation capacity (IRENA, 2017), with hydropower representing the big majority of the installed capacity (51.5 GW).

Under current policy projections, the upward trend in the share of renewable sources in primary energy demand will continue, going from around 3.2% in 2014 to 4.8% by 2030 (IEA, 2016). The expected upward trend has been attributed to the benefits of renewable energy sources in Russia which go beyond emissions reduction and include contribution to economic growth, diversification of the energy mix, and reduction of energy supply costs in remote areas of the country (IRENA, 2017). A new regulation that allows small renewable energy units to feed part of their generation into the grid can be expected to accelerate uptake of renewables by households in the future (Friends of the Earth Russia, 2017).

While these recent developments in the renewable energy market are positive for emissions mitigation, they are far from what would be necessary for a fair Russian contribution to global mitigation. Russia's renewables potential for energy generation has been estimated to be more than 115,0 billion tonnes of coal fuel equivalent by 2030 (IRENA, 2017), which is significantly higher than the 5% share expected to result in 2030 from implementation of current policies.

Additional mitigation measures in other sectors are still needed if emissions were to peak and start declining post-2030 as required by the Paris Agreement. A first step in the right direction would be to present a 2030 target which actually foresees emissions reductions beyond the current policy scenario. This would not only be more credible from an international perspective (Korppoo & Kokorin, 2015), but would also facilitate aligning national policy developments with the long-term emission reductions needed to avoid dangerous levels of climate change.

[1] Our most recent emissions estimates have been corrected downwards since our last country assessment in 2016. The main reason behind this change is not the implementation of any additional policy but lower expected economic growth of the Russian economy (IEA, 2016) combined with the updated historical emissions reported by Russia to the UNFCCC in 2016, which report lower emissions levels than previous submissions (mainly in the fugitive emissions from the oil and natural gas sector). Given that our policy projections and targets are harmonised to country level reported historical data, the entire emissions time series for Russia has shifted downwards for this assessment. The main outcomes and conclusions of our assessment are not affected by those changes in historic and projected emissions.

[2] Since this target has not been met, additional incentives for compliance were added since 2012, being the most recent a payment system (with a multiplying factor) for exceeding the Associated Petroleum Gas flaring limit that came into force in 2015 (Ministry of Natural Resources and Ecology of the Russian Federation, 2015). However, multiple exemptions to the limit, including new oilfields, fields with low emissions, and field under maintenance, limit considerably the effectiveness of the flaring limit, with recent data showing vast underachievement of the limit since 2012 and major delays in implementation (Korppoo & Kokorin, 2015).

Assumptions

Pledge

Targets for all years are calculated using national inventory submissions (UNFCCC, 2016). For 2030 we assume that LULUCF emissions are included in the pledge. For 2020, we calculate two estimated targets for emissions: excluding and including the LULUCF emissions sector.

To quantify the pledges including LULUCF sector accounting, we use sectoral emission projections from the Second Biennial Report to the UNFCCC (Ministry of Natural Resources and Ecology of the Russian Federation, 2015). We also calculate the national accounting quantities for afforestation, reforestation and deforestation using the current LULUCF Kyoto rules. For forest management we use 1990 as reference level.

Current policy projections

Historical emissions levels are taken from the inventory data submitted to the UNFCCC until the last available year, here 2014 (CRF, 2016). The upper limit of current trend projections is based on the World Energy Outlook 2016 Current Policy scenario projections for CO_2 from fuel combustion until 2030 (IEA, 2016), the US EPA non-CO_2 (US EPA, 2012) emission projections until 2030 and extrapolation of the historical trend for other CO_2 emissions. We also quantify the flaring limit and renewable electricity generation targets.

For the Renewable Energy target we assume a 2.5% targets for 2020, which is referenced in multiple energy national documents such as Resolution No. 512-r on the Strategy of Energy Efficiency and the Development of the Energy Sector (FC Advisory Services, 2013), and is in line with capacity-based targets of adding 3600 MW of wind power, 1520 MW of solar power and 751 of small scale hydro power over the period 2014–2020 outlined in Resolution No. 861 and referred to in Decree No. 449 on the Mechanism for the Promotion of Renewable Energy on the Wholesale Electricity and Capacity Market (Russian Federation, 2013b) (Russian Federation, 2013a).

For the flaring gas limit we quantify the implementation of the 95% limit included in the 2009 Decree on Measures to Stimulate the Reduction of Air Pollution from Associated Gas Flaring Products. To reflect the high uncertainty around future emissions from flaring in Russia and the large margin of underachievement of the limit observed in recent years we assume a conservative scenario of effectiveness of this policy, with projected flaring emissions stagnating at 2012 levels. Mitigation from limiting flaring is calculated using historical flaring data from NOAA (2011), historical oil production data from (IEA, 2014) and projections for oil production of the BP energy outlook (BP, 2014).

The lower limit of current trend projections is based on the "with measures" scenario of the Second Biennial Report of the Russian Federation (Ministry of Natural Resources and Ecology of the Russian Federation, 2015) and was estimated applying emissions' projected growth rates to historical emissions data, for harmonisation purposes.

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