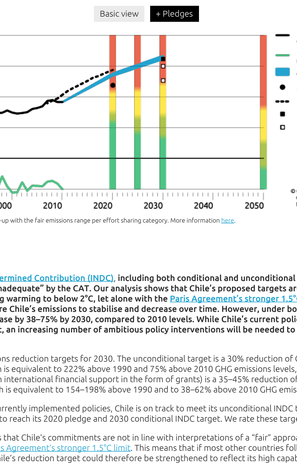
CLIMATE ACTION TRACKER

Chile

History: 2018 2017 2016 2015 2014 2013 2011

Page last updated: 2nd November 2016

Rating



Note: Hover over the coloured bars for a pop-up with the fair emissions range per effort sharing category. More information here.

Assessment

Chile's Intended Nationally Determined Contribution (INDC), including both conditional and unconditional intensity-based emissions reduction targets, is rated as "inadequate" by the CAT. Our analysis shows that Chile's proposed targets are far from an emissions pathway consistent with limiting warming to below 2°C, let alone with the Paris Agreement's stronger 1.5°C limit. A fair and equitable emissions pathway would require Chile's emissions to stabilise and decrease over time. However, under both INDC targets, Chile's emissions will continue to increase by 38–75% by 2030, compared to 2010 levels. While Chile's current policies are likely to limit emissions to its unconditional INDC target, an increasing number of ambitious policy interventions will be needed to limit emissions to its conditional INDC target.

Chile's INDC includes two emissions reduction targets for 2030. The unconditional target is a 30% reduction of GHG emissions-intensity of GDP below 2007 levels by 2030, which is equivalent to 222% above 1990 and 75% above 2010 GHG emissions levels, excluding LULUCF. The conditional target (conditional on international financial support in the form of grants) is a 35–45% reduction of GHG emissions-intensity of GDP compared to 2007 by 2030, which is equivalent to 154–198% above 1990 and to 38–62% above 2010 GHG emissions levels, excluding LULUCF.

According to our analysis, with currently implemented policies, Chile is on track to meet its unconditional INDC target. However, Chile will need to implement additional policies to reach its 2020 pledge and 2030 conditional INDC target. We rate these targets as "inadequate".

The "inadequate" rating indicates that Chile's commitments are not in line with interpretations of a "fair" approach in line with holding warming below 2°C, let alone with the Paris Agreement's stronger 1.5°C limit. This means that if most other countries followed Chile's approach, global warming would exceed 3–4°C. Chile's reduction target could therefore be strengthened to reflect its high capability.

In its INDC, Chile also proposes the sustainable management and recovery of 100,000 hectares of forest by 2030 and the reforestation of 100,000 hectares (Government of Chile, 2015). Chile is one of the few countries that separates the LULUCF sector target from other emissions, which increases the transparency of its proposed actions.

Under the Copenhagen accord, Chile proposed to undertake Nationally Appropriate Mitigation Actions (NAMAs) to reach an emissions level 20% below business-as-usual (BAU) by 2020 (as projected from 2007). We also rated this target "inadequate". Further, Chile has various NAMA proposals moving towards implementation, which may lead the way to further emission reductions in the future. Chile is making progress towards decarbonisation with the Non-Conventional Renewable Energy Law (NCRE) and the carbon tax for fixed sources (turbines or boilers above 50 MW_{th}) of USD 5/tCO_2 which will come into effect in January 2017.

Pledges and targets

Paris Agreement targets

Chile's INDC includes two emissions mitigation targets for 2030:

- **Unconditional:** 30% reduction of GHG emissions-intensity of GDP compared to 2007 by 2030 (Chilean Government, 2015). With a projected GDP growth of 149% over the period 2007 to 2030 (Government of Chile, 2014b), we estimate this option results in emissions levels of 161 $MtCO_2e$ by 2030 (222% above 1990 and 75% above 2010 GHG emissions levels excluding LULUCF).
- **Conditional on international financial contributions in the form of grants:** 35–45% reduction of GHG emissions-intensity of GDP compared to 2007 by 2030 (Government of Chile, 2015). We estimate this option results in emissions levels of 127–149 $MtCO_2e$ by 2030 (154–199% above 1990 and to 38–62% above 2010GHG emissions levels excluding LULUCF).

Both of the GHG emissions-intensity targets do not include emissions or removals from the forestry sector. In its INDC, Chile proposes separate targets to address only this sector: a) sustainable management and recovery of 100,000 hectares of forest by 2030 with estimated emissions reductions of 0.6 $MtCO_2e$ per year from 2030 and b) commitment to afforest 100,000 hectares, with mostly native species, that are estimated to capture between 0.9–1.2 $MtCO_2e$ per year from 2030 (Government of Chile, 2015).

Copenhagen pledge	
2020 target	20% below BAU by 2020
Reference for the pledge	BAU [138% above 1990 GHG emissions excl. LULUCF]
Conditions	International support
Paris Agreement target	
Ratified	No
2030 target	Unconditional: 30% below 2007 GHG intensity of GDP by 2030 [222% above 1990 emissions excl. LULUCF by 2030] Conditional: 35–45% below 2007 intensity of GDP by 2030 [154–198% above 1990 emissions excl. LULUCF by 2030]
Coverage	Economy-wide excl. LULUCF
LULUCF	Separate target from rest of emissions; management and recovery of 100,000 hectares and reforestation of 100,000 hectares of forest by 2030.
Long term goal	
Long-term goal	None

On September 2016, one year after submitting its INDC, Chile became one of the last countries to sign the Paris Agreement. Chile has started its national process for ratification of the Agreement while preparing a climate agenda mainly based on their 2017–2022 National Action Plan on Climate Change (Publimetro, 2016).

2020 pledge

Chile has proposed to undertake NAMAs to reach an emissions reduction of 20% below BAU including LULUCF in 2020 (as projected from 2007). We estimate this is an absolute pledged emissions level of 119 $MtCO_2e$ in 2020 excluding emissions from LULUCF. This is equivalent to an increase of 138% from 1990 GHG emissions levels excluding LULUCF.

Fair share

We rate Chile's pledge for 2020 and Chile's INDC emission reduction targets for 2030 "inadequate." The "inadequate" rating indicates that Chile's commitment is not in line with interpretations of a "fair" approach in line with holding warming below 2°C, let alone with the Paris Agreement's stronger 1.5°C limit. This means that if most other countries followed Chile's approach, global warming would exceed 3–4°C. The reduction target could therefore be strengthened to reflect the Chile's economic capability.

Chile's projected emissions levels in 2020, 2025 and 2030 are in the "inadequate" range, also considering that most effort sharing approaches lead to similar levels of emission allowances. The upper end of the "medium" range is determined by effort sharing approaches focusing on equal cumulative per capita emissions. To be in line with the most stringent approaches, which focus on capability, Chile would need even further emissions reductions.

Current policy projections

Between 1990 and 2010, Chile's emissions increased by 84% from 50 $MtCO_2e$ to 92 $MtCO_2e$, excluding LULUCF. Taking into account Chile's current policies, we estimate that emissions will reach 134–138 $MtCO_2e$ per year in 2020 excluding LULUCF, which represents a 169–177% increase above 1990 levels, and an increase of 47–51% above 2010 levels. We project that emissions in 2030 will be 161–167 $MtCO_2e$ (224–234% above 1990 levels and 78–82% above 2010 levels) excluding LULUCF.

As pointed out in the INDC, Chile has a Climate Action Plan from 2016–2021, which takes a cross-cutting mitigation perspective. Chile pursues a National Strategy for Sustainable Buildings, which includes energy, water, waste and health goals. Furthermore, the government approved a carbon tax of 5 USD/tCO_2 for fixed sources (turbines or boilers above 50 MW_{th}) in 2014, coming into effect in January 2017.

One of the most significant of the Chilean government's implemented policies is the Non-Conventional Renewable Energy Law (NCRE). The NCRE aims to achieve a 20% renewable energy target in 2025 by committing to 45% of installed electricity generating capacity in 2014–2025 to come from non-conventional renewable energy sources. When he signed the Paris Agreement, the President highlighted that, in the latest tender for electricity, 52% of the generation came from solar and wind power,—a significant contribution toward achieving the NCRE target. Chile aims to fulfil future energy requirements by further developing non-conventional renewable energy sources, such as geothermal, wind, solar, tidal, biomass and small hydroelectric plants.

The government's Energy Agenda 2014–2018 (Government of Chile, 2014a) proposes additional policies that may contribute to further emissions reductions, such as implementing energy management systems in major energy consumers, efforts to decouple energy consumption from revenues in SMEs, and commitments from the federal administration to reduce energy consumption from the public sector. The Energy Agenda affirms support for the NCRE and prioritises activities to improve energy efficiency. To address energy security concerns, the Energy Agenda also highlights the current government's intention to develop LNG import facilities and invest in oil and gas exploration projects. Overall, this is a significant shift away from previous Government plans to meet increasing demand with additional coal fired power plants considering coal consumption almost tripled over the period 1990–2010 (O'Ryan et al., 2010).

From 2010–2013, the government implemented several policies on appliance labelling, energy efficiency, fuel efficiency standards and electricity infrastructure. Policies that stand out are the Energy Efficiency Seal (2013) and Energy Efficiency Action Plan 2012–2020 (Government of Chile, 2012), which aims to set a suitable legal framework for energy efficiency implementation across different sectors towards a 15% energy efficiency improvement by 2025. The Energy Efficiency Action Plan is part of the government's Energy Agenda.

In 2012 the government introduced emissions limits for light, medium and heavy-duty vehicles (Ministerio del Medio Ambiente, 2012). Chile has implemented subsidies for power transmission lines to facilitate access to the grid for renewable energy installations (Chile Library of Congress, 2012) as well as modifications to the general law of electrical services for power generation using unconventional sources of renewable energies (Chile Library of Congress, 2013). All of these policies facilitate Chile's transition to low-carbon development.

The LULUCF sector has been a sink of around 50 $MtCO_2e$ in the period 1990–2010, which is roughly equal to the non-LULUCF 1990 emissions (Ministerio del Medio Ambiente, 2014b). Notably, in earlier emissions inventories, a lower LULUCF sink was reported. The change is a result of methodological improvements in the latest national inventory report. The most significant of the changes for the LULUCF sector are the inclusion of the carbon pool that corresponds to below ground living biomass of forest plantations, which increased GHG removals (Ministerio del Medio Ambiente, 2014b).

Assumptions

Historical Emissions

Historical emissions were taken from the latest national inventory report for the period until 2010 (Ministerio del Medio Ambiente, 2014b).

Pledges

The 2020 pledge did not state a reference pathway. We have therefore calculated Chile's 2020 pledge using as reference the 2007 BAU scenario from BCG (2013). This pathway closely resembles the 2007 BAU presented by Searle (2011) on behalf of the Chilean Government in the same context. As the pledge covers emissions including LULUCF, the emissions level resulting from the pledge is first calculated based on BAU emissions including LULUCF. Projected LULUCF emissions (BCG, 2013) are then subtracted to arrive at the pledged emissions level excluding LULUCF, which is shown in the graph. The BAU shown in the graph excludes LULUCF.

Both targets presented in Chile's INDC were quantified based on the "medium case" GDP projections from the MAPS Chile project (Government of Chile, 2014b; Ministerio del Medio Ambiente (2014c). These projections are referred in the INDC and expect a GDP (CLP$ 2011) growth of 149% over the period 2007 to 2030. The current policy projections are based on the same assumptions on GDP growth.

Current policy projections

The lower end of the current policy projections range is based on the scenario 'Energias Renovables No Convencionales' from the maps Chile project (Government of Chile, 2014b). For the upper end of the range, we took the same scenario but removed the projected impact of the carbon tax of 5 USD/tCO2 that is to be implemented as of January 2017. This was done to account for the unknown overlap between the Non-Conventional Renewable Energy Law and the carbon tax.

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