Australia: Emissions set to soar by 2020

Climate Action Tracker Policy Brief

Bill Hare, Marcia Rocha, Michiel Schaeffer, Fabio Sferra
Climate Analytics
Louise Jeffery, Johannes Gütschow
Potsdam Institute for Climate Impacts Research

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Summary

Australia's emissions are set to increase substantially under the Australian Government's climate policies to more than 50% above 1990 levels by 2020. The CAT finds no credible analysis that shows that meeting its Copenhagen pledge of (cutting emissions by 5% below 2000 levels by 2020) is any way plausible with present policy settings. The Copenhagen pledge, even if fully achieved, would allow emissions to be 26% above 1990 levels of energy and industry GHGs.

Under its current policies the Australian Government will very likely reverse recent declining trends in per capita emissions, so that per capita emissions increase.

In terms of emission effort, Australia will be going in the opposite direction to China and the US, who are putting effort into reducing emissions.

Australia has exerted considerable diplomatic effort over more than 15 years to secure accounting rules in its favour and that increase allowed emissions of GHGs – and this continues in Lima. This has been done through its choice of baseline emission sources, and through lobbying for rules and/or approaches to accounting for land use change and forestry activities that result in extra emission allowances, In Lima, Australia is again working on a redefinition of emissions that would reverse the intent of an amendment to the Kyoto Protocol to limit surplus emissions allowances that would have the effect of allowing a further 6% to be added to its allowed emissions in 2020. This is just the most recent example of Australia lobbying for rules that undermine the integrity of the emissions accounting system as a whole and/or rules that carve out special exceptions to the detriment of all, but to the benefit of a few.

Based on the CAT assessment Australia may not need to do anything to meet its Kyoto second commitment period obligations (a 0.5% reduction from 1990 levels – or 99.5% of its 1990 baseline), a situation that also prevailed for the first commitment period (2008 to 2012). The CAT has quantified emissions credits from land use activities that could result in Australia's allowed emissions from energy and industry approaching or exceeding 50% above 1990 levels in 2020.

The lack of fully transparent data does not permit scientifically-based verification of the published Australian Government estimates of Kyoto LULUCF debits for the second commitment period of the Kyoto Protocol, which are the opposite to the credits estimated by the CAT. In the absence of further information, the CAT believes it is more likely that an increase of 47-59% in energy and industry GHG emissions above 1990 levels could be permitted than the 27% increase according to published Australian government sources. Fully transparent data on Australian projections and estimates of future LULUCF emissions and removals are needed in order for the CAT to revise, improve and, hopefully, even reverse our estimates.

Scenario	2000 base year GHG emissions	2000 energy and industry GHG emissions	1990 energy and industry GHG emissions
Base year emissions	556.7 $MtCO_2e$	489.8 $MtCO_2e$	415 $MtCO_2e$
Copenhagen pledge -5% by 2020 below 2000 levels	-5%	+7%	+26%
CAT projection of pre-repeal policies for 2020	-3% to +1%	+9% to +13%	+29% to +34%
Kyoto targets in 2020 99.5% of 1990 emissions (or 0.5% below 1990)	+11% to +19%	+25% to +34%	+47% to +59%
CAT projections of current policies for 2020	+12% to +18%	+26% to +33%	+49% to +57%

Table 1 Policy scenarios compared to different base years and emissions.

Australia assessment

The Climate Action Tracker has evaluated the most recent policy developments in Australia and how they impact on the future growth of greenhouse gas emissions, in particular from fossil fuel and industrial sources ("energy and industry GHG emissions"). We have compared Australia's likely future per-capita emissions with the USA.

Large increase in emissions projected

Australia is set to increase its energy and industry GHG emissions over the next six years by 14-20% above 2012 levels, so that by 2020 its overall energy and industry GHG emissions are likely to be 49-57% higher than in 1990. Present emission levels are approximately 31% higher than in 1990.

There is no published analysis that shows that the Government's new legislation, the "Clean Energy Act," (July 2014), can come anywhere close to reducing emissions sufficiently to meet its Copenhagen pledge. The CAT analysis of the Australian Government's new legislation that replaced the landmark Climate and Energy Act (November 2011) finds this so weak that rather than a 5% reduction from 2000 levels emissions are likely to head in the opposite direction towards an **increase of 12-18% above** 2000 levels.

The Copenhagen 5% reduction pledge is really an increase in emissions

The **5% reduction** pledge is not anywhere close to what it sounds like. The CAT finds that the Australian choice of base year 2000 emissions, including a selective choice of deforestation, reforestation and afforestation emissions, disguises the fact that even if the pledge was met, energy and industry emissions would increase by about 26% above 1990 levels by 2020. The recently repealed Climate and Energy Act and related policies were projected to have been able to limit emissions close to this level – a 29-34% increase of energy and industry GHG emissions over 1990 levels – or with reference to year 2000 base year emissions, a 3% reduction to a 1% increase.

Kyoto Protocol rules secured by Australia set to allow 50% + increase in emissions over 1990

The CAT shows for the first time that under the Kyoto Protocol's second commitment period rules, Australia is likely to be allowed to increase its emissions by up to 47-59% over 1990 levels of energy and industry GHGs in 2020, so much so that Australia would barely need to do anything. This allowance under the Kyoto Protocol is close to the range of CAT current policy projections for Australia, taking into account the repeal of the climate legislation and the Abbott Government's Direct Action programme for 2020.

Important details on Kyoto allowed emissions

The Government has committed to ratify the second commitment period of the Kyoto Protocol, where Australia has a target of 99.5% of 1990 base year emissions. On the surface, Australia's commitment to limit emissions to 99.5% of 1990 levels seems straightforward and an improvement over the 8% increase over 1990 levels allowed for the Kyoto Protocol's 2008-2012 first commitment period. But the reality is the opposite and worse. How can this be so? There are a set of accounting elements which, taken together, lead to this situation:

- Australia has a special clause, inserted at the last minute in the Kyoto Protocol in 1997 within Article 3.7, that allows it, almost uniquely, to add deforestation emissions to its energy and industry GHG emissions in 1990 to calculate its allowed emissions during a Kyoto commitment period. For the second commitment period, this leads to allowed emissions in 2020 of about 32% **above** 1990 levels of energy and industry GHGs. For Australia, in the absence of "the Australia clause" in Article 3.7, the Kyoto Protocol's second commitment period average target for the 2013-2020 period of 99.5% of 1990 emissions would result in a reduction of about 32% **below** 1990 energy and industry GHG emissions by 2020, assuming emissions drop smoothly from present levels (about 31% above 1990 levels) to 2020.

- This is no real surprise given that a similar situation occurred in the first commitment period. Instead of the apparent 8% increase, Australia was allowed a 42-43% increase in energy and industry GHG emissions for the period of 2008-2012. This gave Australia a **surplus** of emissions allowances in the 2008-2012 period equivalent to about 5% of its 1990 energy and industry emissions. In other words, meeting its first Kyoto target was almost as easy for Australia as for any of the former east European countries and Russia, whose economies collapsed in the 1990s after the fall of the Soviet Union. By 1997, when the Kyoto Protocol was adopted, Australia's deforestation emissions had already dropped by almost 50%, meaning that this was almost a completely free benefit.

- For 2020, Australia's first commitment period surplus would add a further 6% to the allowed energy and industry GHG emissions, lifting these to about 38% above 1990 levels in 2020.

- In addition to these elements it is mandatory, in the second commitment period, to account for Kyoto's Article 3.3 afforestation, reforestation and deforestation (ARD) and, under Article 3.4, forest management, adding about a further 9% to the allowed 2020 energy and industry GHG emissions, lifting this to 47% above 1990 levels in 2020.

- This is not the end of the credits: Australia has also signalled it would include cropland and grazing land management, which could add a further 11% to the allowed emissions, bringing Australia's energy and industry GHG emissions to a total of 58% above 1990 levels in 2020.

- And nor is it the end of diplomatic efforts to have rules changed or adopted in Australia's favour and that increase allowed emissions. The 2012 Doha amendments to the Kyoto Protocol limited the ability of countries to use surpluses acquired because of things that had happened anyway, such as the collapse of economies in eastern Europe and the drop in deforestation emissions in Australia post 1990 (Article 3.7ter).

  In Lima, Australia is working to reverse the effect of these amendment to the Kyoto Protocol limiting surplus carryover by proposing to redefine the meaning of emissions that so that it can get the full benefit of the surplus. If Australia's proposed interpretation of Article 3.7ter is not accepted, then Australia would, in effect, lose the benefit of the Article 3.7 surplus from the first commitment period, and the allowed emissions, in 2020 would be reduced by about 5% to 54% above 1990 levels in 2020.

CAT assessment versus Australian government estimates

With the CAT assessment of likely aggregate **credits** due to Kyoto land use change activities (LULUCF), and other factors, Australia's allowed energy and industry GHG emissions could be increased in 2020 to 47-59% above 1990 levels of energy and industry GHG emissions. Under the CAT assessment of likely aggregate credits due to Kyoto Article 3.3 and 3.4 land use and land use change activities, these contribute about 21.2% to the allowed energy and industry GHG emissions in 2020: without these LULUCF credits the allowed emissions would be 26-38% above 1990 levels of energy and industry GHG emissions.

The Government's published assessment of aggregate effects due to the same Kyoto land use change activities is the **opposite** sign to the CAT: it indicates a **debit** equivalent to about 4.9% of 1990 energy and industry GHG emissions, which would reduce the allowed emissions in 2020 by about 9.8% relative to 1990 energy and industry GHG emissions. Under these assumptions, Australia's allowed 2020 energy and industry greenhouse gas emissions under Kyoto would still exceed their 1990 levels by 28%.

The CAT believes its assessment represents a reasonable, independent and scientifically based estimate based on the available raw data and the application of the Kyoto rules as they are generally understood. The lack of fully transparent data does not permit a scientifically-based verification of the published Australian Government estimates of Kyoto LULUCF credits or debits for the second commitment period of the Kyoto Protocol. In the absence of further information, the CAT believes it is more likely that an increase of 47-59% in energy and industry GHG emissions above 1990 levels could be permitted than the 28% increase according to published Australian government sources. The CAT looks forward to further and fully transparent data on Australian projections and estimates of future LULUCF emissions and removals in order to revise, improve and even reverse our estimates.

Australia projected to increase its per capita GHG emissions as US decreases

One useful comparison of the level of effort being undertaken on climate policy between two economies like Australia and the US is the trend in per capita GHG emissions. Ultimately, to limit warming below 2^{o}C, per capita emissions will need approach zero around mid-century, hence will need begin a substantial decline.

The US and Australia started the 1990s with similar per-capita emissions. By 2000 US per capita emissions had started to decline, with this accelerating in the last ten years, a trend that would continue under the US Copenhagen pledge of a 17% reduction from 2005 levels. The full package of measures implemented and proposed by the US Administration, including additional measures would continue this trend.

If Australia were to fulfil its Copenhagen pledge then its rate of reduction of per capita emissions would parallel the USA through at least 2020. As we have shown, however, this is now very unlikely and with emissions instead set to increase significantly, per capita emissions appear likely to increase. This would indicate a substantial slowdown of effort by Australia compared to the US on the timeframe of the rest of this decade.

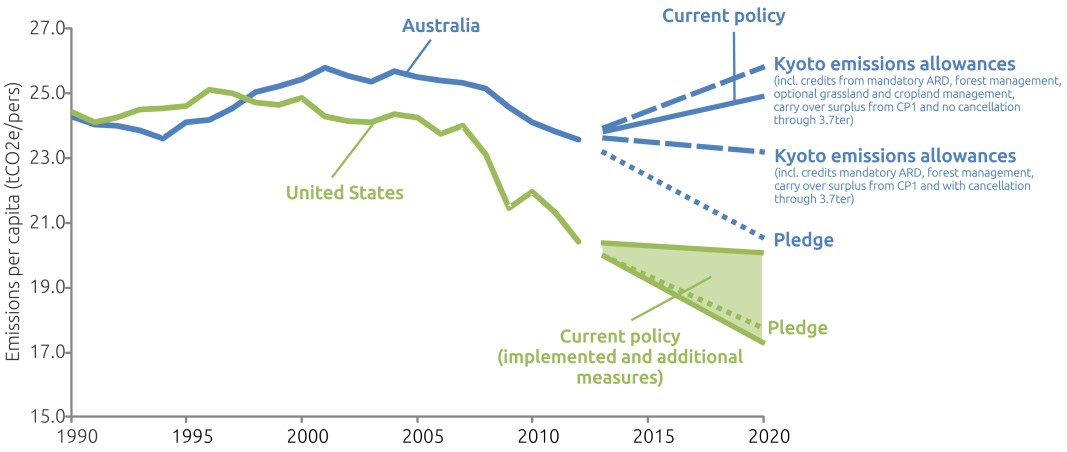

Figure 1 Per capita emissions trends USA and Australia

The Climate Action Tracker is an independent science-based assessment that tracks the emission commitments and actions of countries. It is a joint project of the following organisations:

Climate Analytics

Climate Analytics is a non-profit organization based in Potsdam, Germany. It has been established to synthesize climate science and policy research that is relevant for international climate policy negotiations. It aims to provide scientific, policy and analytical support for Small Island States (SIDS) and the least developed country group (LDCs) negotiators, as well as non-governmental organisations and other stakeholders in the 'post-2012' negotiations. Furthermore, it assists in building in-house capacity within SIDS and LDCs. Contact: Dr. h.c. Bill Hare, +49 160 908 62463

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Potsdam Institute for Climate Impact Research (PIK)

The PIK conducts research into global climate change and issues of sustainable development. Set up in 1992, the Institute is regarded as a pioneer in interdisciplinary research and as one of the world's leading establishments in this field. Scientists, economists and social scientists work together, investigating how the earth is changing as a system, studying the ecological, economic and social consequences of climate change, and assessing which strategies are appropriate for sustainable development. Contact: Dr. Louise Jeffery, louise.jeffery@pik-potsdam.de

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