



Australia's proposed 'Kyoto carryover' - nature, scale, implications, legal issues and environmental integrity of the Paris Agreement

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Executive Summary

Under the Paris Agreement, Australia has committed to reduce its emissions by 26-28% below 2005 levels by 2030. Australia is now considering whether to count what it portrays as “overachievement” over the first Kyoto commitment period (2008-2012), and possible overachievement over the Protocol's second commitment period (2013-2020), toward its emission reduction commitment (Nationally Determined Contribution) for 2030 under the Paris Agreement.

This paper briefly explores the rule set giving rise to Australia's claim of “overachievement”, including the assumptions made in establishing Australia’s budgets for the first and second Kyoto Protocol commitment periods. We conclude that any claim of overachievement under the Kyoto Protocol does not represent any real emission reductions but is technical only, resulting from anomalies under Kyoto accounting rules and deliberate accounting choices Australia made. The same is true of Australia's 2020 Cancun pledge.

Some or all of the technical Kyoto Protocol “overachievement” derives directly from the fact that Australia had substantial domestic deforestation emissions in 1990, which have reverberated through its climate change accounting over the last two decades. It would be perverse, to say the least, to *reward* Australia in 2030 for large scale *deforestation* that took place forty years earlier in 1990. A portion of this recorded “overachievement” can also be said to come directly from Australia's decisions to allow itself an 8% *increase* in its emissions in the first Kyoto commitment period compared to 1990 levels and a minimal 0.5% reduction for the second -- in other words, the adoption of earlier targets that were quite unambitious.

To the extent any “overachievement” in the pre-2020 period is ultimately portrayed as having taken place under Australia’s 2020 Cancun pledge, rather than its Kyoto target, this result will be equally artificial. First, such an assertion would assume that Australia has reneged on its promise to the international community to increase its 2020 reduction effort up to 15% if the world reached a comprehensive treaty capable of limiting concentrations of GHGs to below 450 ppm (the Paris Agreement is capable of this, and a -15% target absorbs any “overachievement”). Second, even against a -5% reduction target, an assertion of “overachievement” would also assume a creatively-established and inflated budget against which to assess achievement, as well as a creative means of measuring Australian emissions over the same period for comparison with this budget, with both based on amalgam of carefully selected Convention and Kyoto accounting options.

Efforts to seek recognition under the Paris Agreement for these historical artefacts, in the guise of or repackaged as “overachievement”, in an effort to minimise future mitigation efforts required, would be contradictory to the goals and principles of the Paris Agreement, to which Australia has itself subscribed as a Party.

Further, there is currently no legal basis for the "carryover" of pre-2021 units from the Kyoto Protocol for use under the Paris Agreement. The Kyoto Protocol and Paris Agreement are separate treaties. Even within its own legal framework, the Kyoto Protocol does not permit the carryover of units or underlying reductions beyond the 2013-2020 second commitment period. There can be no carryover of allowed amount units (AAUs) to a non-existent "subsequent" commitment period, or carryover of certified emission reductions (CERs) to a non-existent third commitment period. Nor is there a Paris Agreement CMA Decision expressly permitting "carryover" into the Paris Agreement.

From the perspective of equity, it should also be noted that the Paris Agreement calls for Parties to present their highest possible ambition, promote environmental integrity and ensure the avoidance of double counting. Any use of old Kyoto allowances or emission reductions achieved in another Party would clearly contradict these elements of the Paris Agreement. It would also undermine the effective ambition of the NDCs that have been presented, but also the goals, principles, fabric and machinery of the Paris Agreement itself.

In sum, there are a number of reasons why it would not be legitimate or defensible -- from a factual, legal or equity perspective -- for Australia to use Kyoto Protocol "overachievement" toward its Paris Agreement NDC.

Given Australia's projections it would almost certainly be best for Australia to openly acknowledge the challenges it faces in meeting its 2020 and 2030 targets, and do its utmost to put in place policies and measures that can bend its emissions trajectory. Australia's December 2018 projections indicate emissions levels of about 7% below 2005 levels in 2030 are expected from current policies. Its more recent December 2019 projections show a lower level of emissions for 2030, 16% below 2005 levels.

In addition, Australia would do well to support the development of robust Article 6 rules, including rules that preclude carryover, so that going forward it has both flexibility in how it meets its target, and a transparent set of credible, multilaterally agreed rules within which to do so.

Australia's proposed carryover in December 2018 projections as 367 MtCO₂e and in its December 2019 projections had increased 411MtCO₂e. These volumes would have a significant effect on Australia's effective mitigation effort. Were this carryover to be used, as Australia proposes, it would reduce Australia's target in 2030 from 26% to only a 14.9% reduction below 2005 emissions levels in the case of the December 2018 projections and 13.9% in the case of December 2019 projections. In other words, Australia's proposed use of KP units or "overachievement" would eliminate much of the reductions in 2030 anticipated from Australia's NDC. Carryover use would substantially reduce the environmental effectiveness of Australia's already "insufficient" 2030 NDC target.¹ It would also have negative repercussions for the

¹ See <https://climateactiontracker.org/>

environmental integrity of Paris Agreement NDCs in aggregate, as well as the Agreement's efforts to promote transparency, accuracy, consistency and comparability and avoid double counting.

If Australia believes surplus AAUs should be available for use toward NDCs, the burden is on Australia to pursue a Paris Agreement CMA² decision expressly allowing this. However, the likelihood of a Paris Agreement CMA decision approving the "carryover" of AAUs to the Paris Agreement is virtually nil. This is due to the nature of AAUs as time-bound allowances, the concerns previously raised at the international level about the environmental integrity of surplus AAUs, the CMP's efforts to corral these units even within the Kyoto Protocol rule set into Previous Period Surplus Reserves, and the principles of the Paris Agreement, which require all Parties to promote environmental integrity and express their highest possible mitigation ambition. Both the CMA and CMP take decisions by consensus; the Alliance of Small Island States (AOSIS), the LDC Group and a number of other developed and developing countries are already on the record as opposing the carryover of Kyoto units to the Paris Agreement. In the absence of a supporting decision, Australia's claims to "carried over" AAUs will not be plausible.

Although this should not be necessary, CMA Parties concerned with the possibility of carryover may themselves wish to propose a draft decision that expressly precludes use of Kyoto "surplus" AAUs toward Paris Agreement goals, precludes AAUs and CERs toward Paris Agreement goals, or alternatively precludes use of any pre-2021 vintage units or reductions, without being specific about which units are not permitted.

Other possible draft decisions - intended to provoke a discussion highlighting the difficulty with CER use - could link to Paris Agreement compliance processes and focus on double counting of credits or units by multiple Parties, or by the same Parties in multiple periods. Within the Paris Agreement, both Article 4 and Article 6 of the Paris Agreement require the Parties to ensure the avoidance of double counting. Australia's proposed CER use would lead to the double counting of these reductions by Australia and the countries hosting these projects, unless an understanding is reached with each host country, whereby that host agrees not to also count those reductions towards its own NDC.

Under the Kyoto Protocol, CMP Parties might propose decision language recalling that unused AAUs from Kyoto CP1 and CP2 are to be cancelled at the end of CP2's true up period.

If a formal decision is not possible due to Paris Agreement consensus rules, which Australia may seek to exploit, like-minded Parties could simply join together to express their shared understanding that AAUs do not survive the expiration of CP2, and that they and CERs are not appropriate for use under the Paris Agreement.

² CMA – Conference of the Parties serving as the meeting of the Parties to the Paris Agreement

Introduction

Under the Paris Agreement, Australia has pledged to reduce its emissions by 26-28% below 2005 levels by 2030. The two most recent projections by Australia show different quantitative outcomes for 2030 however in both cases policies fall short of meeting these emission reductions. In the absence of policies consistent with the delivery of its target, Australia is considering whether to present what it portrays as its "overachievement" of Kyoto Protocol targets over the first Kyoto period (2008-2012), and possibly the second Kyoto period (2013-2020), toward achievement of its Nationally Determined Contribution target for 2030 under the Paris Agreement.

This paper briefly explores the rule set giving rise to Australia's claim of "overachievement", including the assumptions made in establishing Australia's budgets for the first and second Kyoto Protocol commitment periods, as well as the key assumptions underlying Australia's 2020 Cancun Agreement target. It considers the rules in place to address carryover within the Kyoto Protocol, and the source, nature and quantum of the allowances and emission reduction units Australia tags as constituting its "overachievement." See Figure 1 below for schematic timeline of the agreements relating to the carryover question.

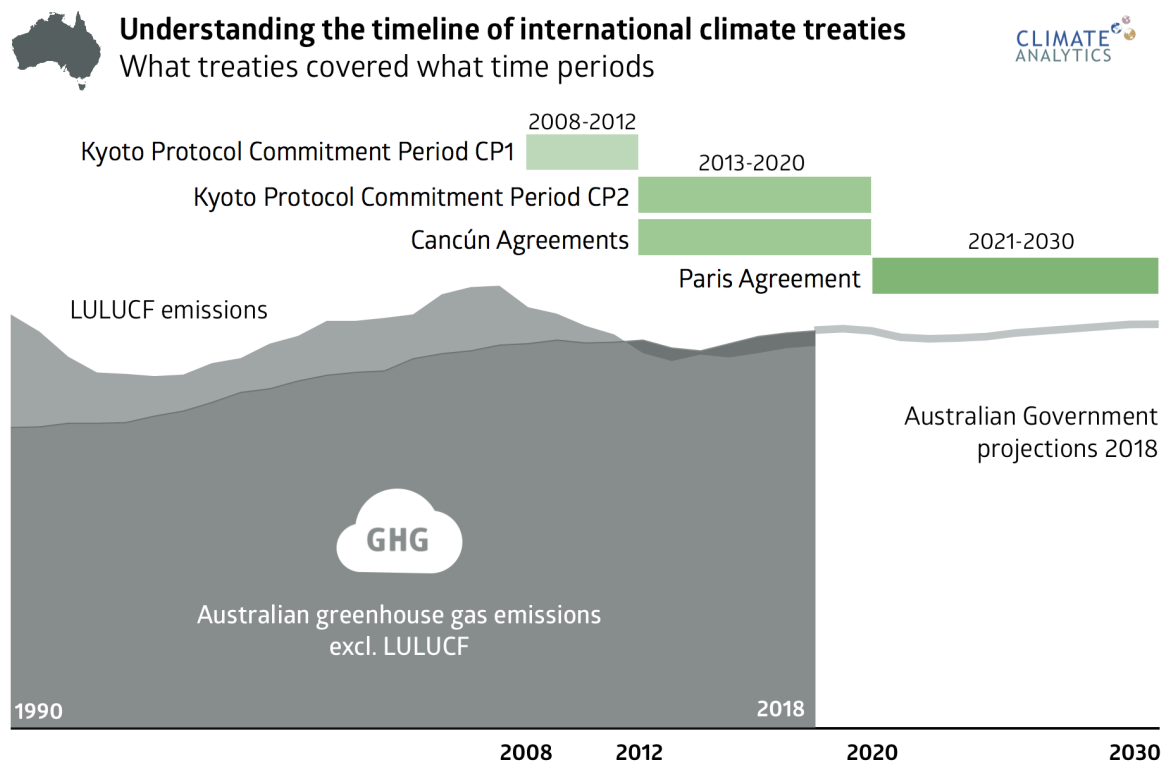


Figure 1 Timeline for agreements covered in this paper

The paper then places this proposed "Kyoto carryover" in the legal context of the Paris Agreement, noting the absence of any reference therein to the Kyoto Protocol or to "carryover", the inconsistency of carryover with relevant aims, principles and provisions of the Protocol and Paris Agreement, and the ongoing debate on the possible carryover of Kyoto

CDM and Joint Implementation units and/or activities in negotiations under Article 6 of the Paris Agreement. After identifying a series of impediments to Australia's use of what it has termed "overachievement" under the Paris Agreement, the paper turns to approaches that might be taken at various levels to address this issue directly, in view of the risk posed to the environmental integrity of the Paris Agreement.

The December 2018 projections, including land use change and forestry for 2030 are about 6% below 2005 levels, and some 5-6% above 2018 emission levels. Emissions from fossil fuels industry and other industrial sources of greenhouse gases (excluding land use change and forestry) are projected to be [8 percent above 2005](#) levels). The new December 2019 emission projections are significantly different, 16% below 2005 levels and some 4% below 2018 emission levels (incl. LULUCF). In these projections fossil fuels industry and other industrial sources of greenhouse gases (excluding land use change and forestry) are projected to about the same as 2005 levels. There are significant questions surrounding the most recent 2019 projections and associated changes to the national greenhouse gas inventory and as a consequence both the 2018 and 2019 projections will be used in this report.

A. Australia's pledged emission targets under the Convention, Cancun Agreements, Kyoto Protocol and Paris Agreement

Australia has adopted a series of emission reduction targets under the Convention, the Kyoto Protocol and the Paris Agreement. Targets under these three different treaties rely on different base years (1990, 2000, 2005) and apply a range of different accounting rules, rendering comparison difficult. This paper will identify some common threads, so that the claim of "overachievement" can be understood in context.

Table 1 Australian targets under climate agreements

Year target set	Treaty	Australian Target	Notes
1992	UNFCCC	Parties aim to reduce emissions to 1990 levels by 2000. <ul style="list-style-type: none"> Emissions in 2000 were about 95% of 1990 levels, and current government projections indicate they will remain within 95% of 1990 levels until 2030 	Convention addresses both emissions and removals
1997	Kyoto Protocol First Commitment Period (CP1)	Limit increase in emission levels of Annex A listed GHGs (excluding LULUCF) to 8% above 1990 levels, over the period from 2008-2012 <ul style="list-style-type: none"> Target met, but average emission levels of GHGs excluding LULUCF in the first Kyoto commitment period (CP1) (2008-2012) were 28% above 1990 levels. 	Kyoto Protocol addresses Annex A source emissions; limited offsetting is permitted from certain land sector activities
2010	Cancun Agreements	Reduce emissions by 2020 to 5% below 2000 levels (unconditional); up to 15% below 2000 levels, or 25% below 2000 levels (conditional)	Australia has applied a mix of KP and Convention accounting rules (see TRR.AUS)
2012	Kyoto Second Commitment Period (CP2)	Reduce emissions 0.5% below 1990 levels over the period from 2013-2020	Emissions offset by certain land sector activities; CP2 not in force
2015	Paris Agreement	Reduce emissions of all GHGs including LULUCF 26-28% below 2005 levels by 2030 following a budget approach.	Australia proposes mix of KP and Convention accounting rules

1. UN Framework Convention on Climate Change - 2000

Under the UNFCCC, developed countries aimed to **reduce their emissions individually or jointly to 1990 levels by 2000**. All Parties, both developed and developing, agreed to report their national greenhouse gas emission inventories regularly. These inventories reflect economy-wide anthropogenic emissions, reported both with, and without, emissions from land use, land use change and forestry.

2. Kyoto CP1 target and budget – 2008-2012

For the first Kyoto Protocol commitment period, Australia took a quantified emission limitation or reduction target (QELRC) of 108 per cent with respect to 1990³ emission levels, set out in Annex B of the Protocol. This represents a commitment to **limit Australian GHG emissions over the 2008-2012 budget period to 8 percent over 1990 emission levels**.⁴ This target relates to a prescribed “basket” of greenhouse gases, from a set of identified sectors and sources (energy, waste, industrial processes, solvent and other product use, agriculture and waste), set out in Annex A of the Protocol – referred to as energy and industrial GHG emissions (not including the land sector) or in shorthand “Annex A sources and gases.”

Under Article 3.7 of the Protocol, Parties’ quantified targets are converted to emissions “budgets” over a multi-year “commitment period”, represented by units of “assigned amount”

³ Under Article 3.5, Annex I Parties undergoing the process of transition to a market economy were permitted to use periods other than 1990; this did not impact Australia. Under Article 3.8, Parties were permitted to use 1995 as a base year for certain F gases.

⁴ Only two other countries negotiated emission increases: Iceland (110) and Norway (101). See Annex B to the Kyoto Protocol.

(or “assigned amount units” or “AAUs”). These budgets are calculated from Parties’ targets and their base year emission levels. For example, a reduction target of 20% below the 1990 base year, in a five year commitment period, would be calculated as $(.80) \times (\text{emissions in the base year in tons}) \times (5 \text{ years})$. A given Kyoto target in effect represents a Party’s intended average emission level over the course of the commitment period. At the end of the commitment period, Parties must hold sufficient AAUs to cover their emissions over the entire commitment period, or they are considered to be in non-compliance.

The Protocol permits Parties to add to their allowed Annex A emissions, calculated according to Article 3.7, a limited quantum of emission “removals” resulting from CO₂ sinks from certain activities in the land sector.⁵ The Kyoto Protocol sets up a complex system of defining what activities can be counted and under what circumstances. Accordingly, the Protocol takes a different approach to accounting from the Convention.

Australia’s first commitment period budget benefited substantially from what has become known as “the Australia clause” - so called because Australia lobbied hard for its inclusion and benefited the most from its inclusion.⁶ The last sentence of Kyoto Protocol Article 3.7 provides that *“Those Parties included in Annex I for whom land use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include in their 1990 emissions base year or period the aggregate anthropogenic carbon dioxide equivalent emissions by sources minus removals from sinks in 1990 from land use change for the purpose of calculating their assigned amount.”*⁷ (emphasis added)

As Australia’s land-use change and forestry emissions were positive in 1990, this triggered the application of the last sentence of Article 3.7. Because Australia’s land use change - deforestation - emissions in 1990 were substantial at **131,544,513 t CO₂eq (131.5 MtCO₂e)**, **this provision boosted Australia’s base year emissions figure by about 24% for purposes of calculating its Kyoto CP1 budget.** Further, because Australia’s QELRC of 108 in effect allowed Australia to increase its emissions by 8% over its 1990 base year emissions over the 2008-2012 period, the effect of this base year bump up related to deforestation was to add a significant number of AAUs to Australia’s overall first commitment period AAU budget. This budget remained fixed, regardless of trends in deforestation rates over the period.

Of Australia’s CP1 AAU budget – a full 710.2 MtCO₂e or 24%, is derived from this clause.⁸ Australia’s total base year emissions including net emissions from deforestation, were 547.7 MtCO₂e).⁹

⁵ When land sector activities take up carbon in aboveground biomass or soils this is called a sink, and is in effect a negative CO₂ emissions.

⁶ For a discussion of this provision, see Australia and the Doha Amendment: a quick guide (2 December 2016), available at https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1617/Quick_Guides/QG-DohaAmendment (recent analysis shows that Australia benefited the most from this clause.)

⁷ See “Australia hits its Kyoto target but it was more a three inch putt rather than a hold in one”, discussing the Australia Clause, in The Conversation, July 16, 2015. Available at <https://theconversation.com/australia-hit-its-kyoto-target-but-it-was-more-a-three-inch-putt-than-a-hole-in-one-44731>

⁸ $(131,544,513 \text{ tCO}_2 \text{ eq.} \times 5) (1.08)$. See Report of the review of the initial report of Australia, FCCC/IRR/2007/AUS, 16 January 2009 at Table 3, note a (providing deforestation figure). Available at Available at <https://unfccc.int/sites/default/files/resource/docs/2009/irr/aus.pdf>

⁹ Id. at Table 3, note a, paras 134-135.

Table 2 Australia's First Kyoto Protocol commitment period accounting parameters and emissions¹⁰

Accounting parameter	tCO ₂ eq.	MtCO ₂ e
Base year emissions - 1990	416,155,330	416.2
Land use change - deforestation - emissions in 1990 (Article 3.7)	131,544,513	131.5
Base year emissions for calculation of Assigned Amount (including Article 3.7 deforestation emissions)	547,699,841	547.7
QUELRO in %	108	
Assigned amount ((5 x base year emissions for calculation of assigned amount) x (1.08))	2,957,579,143	2,957.6
Total Reported GHG emissions in CP1	2,711,153,476	2,711.1
Total in retirement account (all AAUs)	2,711,153,478	2,711.1
AAUs requested for carryover from CP1 to CP2	127,650,775	127.7
CERs requested for carryover from CP1 to CP2	21,768,290	21.8
Total requested for carryover	149,419,065	149.4

3. Kyoto CP2 target and budget – 2013-2020

For the 8-year second Kyoto commitment period (CP2), Australia presented a QELRC of 99.5 against 1990 base year emission levels, over the period 2013-2020. This target appears in the third column of [revised Annex B](#).¹¹

In negotiations over rules for the second commitment period, Australia strongly resisted deletion of the last clause of Article 3.7, linking this provision to its willingness to participate in CP2 with an Annex B target. As a result, Article 3.7bis of the Doha Amendment retains the last line of KP Article 3.7, again giving an accounting bonus to the few Parties with net emissions from deforestation in 1990. See decision 1/CMP.8, Annex I.

With 3.7bis in place, Australia's assigned amount for the second commitment period was again close to 25% higher for CP2 than it would otherwise have been. Australia's base year emissions totalled **566,786 410 tonnes** (566.8 MtCO₂e), including **148,163,361 tonnes** (148.2 MtCO₂e) from deforestation in 1990.

Of Australia's CP2 AAU budget – 1,155 MtCO₂e or 26%, is derived from the 1990 deforestation allowance. It is worthwhile noting that due to inventory revisions the 1990 deforestation emissions number is 12% higher than in the first commitment period, adding about 124 MtCO₂e to the CP2 budget.

¹⁰ See Report of the review of the initial report of Australia, Report upon the expiration of the additional period for fulfilling commitments by Australia (True Up Period Report) (December 2015).

¹¹ Column 3 of the revised Annex B contains CP2 QELROs. Column 6 contains pledged emission reductions or reduction ranges for 2020 derived from Cancun Agreement pledges. Australia, Switzerland, Norway and Liechtenstein's column 6 pledges carry footnotes emphasizing that these ranges reflect pledges under the Cancun Agreement, rather than new commitments under the Kyoto Protocol.

Australia's assigned amount for CP2's eight year commitment period was calculated at **4,511,619,826 tonnes** (4,511.6 MtCO₂e).¹² The cancellation applied under Article 3.7ter of the Doha Amendment, to manage CP2 surplus, did not affect the calculation of Australia's CP2 assigned amount, due to Australia's election under decision 2/CMP.11 to use the same GHGs, sectors and source categories in calculating average annual emissions for 2008, 2009 and 2010 as it used to calculate the assigned amount for CP2.¹³

Australia also included in columns 4 and 5, of [revised Annex B](#), an optional additional target expressed relative to a different reference year (a QELRC of 98 with a reference period of 2000). This target is expressly not binding under the Kyoto Protocol. The only country with a stated reference year other than 1990 in column 4 is Australia. The chosen optional reference year of 2000 is significant, as Australia's Year 2000 Annex A emissions -- emissions from burning fossil fuels and industrial sources -- were about 15 to 16% above 1990 levels.¹⁴ By seeking permission of Parties to include an additional reference year target (in addition to its base year target) Australia is able to give the appearance of an apparently deeper target in the table, linked to its Cancun pledge conditional targets (that it has since distanced itself from i.e., up to - 15% or -25%), and give some semblance of visual parity with other Annex B Parties to the casual observer, if not parity in terms of ambition.

Regardless, the binding Kyoto target Australia took for CP2 is a 0.5% reduction relative to the 1990 base year, with a second substantial bump up for deforestation.

¹² FCCC/KP/CMP/2019/6/Add.1, Annual compilation and accounting report for Annex B Parties under the Kyoto Protocol for 2019 (24 October 2019).

¹³ Decision 2/CMP.11 (Implications of the implementation of decisions 2/CMP.7 to 4/CMP.7 and 1/CMP.8 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol, part I: implications related to accounting and reporting and other related issues).

¹⁴ The footnote to the column 6 entry states "Australia's QELRC under the second commitment period of the Kyoto Protocol is consistent with the achievement of Australia's unconditional 2020 target of 5 per cent below 2000 levels. Australia retains the option later to move up within its 2020 target of 5 to 15, or 25 per cent below 2000 levels, subject to certain conditions being met. This reference retains the status of these pledges as made under the Cancun Agreements and does not amount to a new legally binding commitment under this Protocol or its associated rules and modalities."

Table 3 Australia's Second Kyoto Protocol commitment period – selected accounting parameters¹⁵

Accounting parameter	tCO ₂ eq.	MtCO ₂ e
Base year emissions - 2000	418,623,049	418.6
Net deforestation emission in 1990	148,163,361	148.2
Total base year emissions for calculation of Assigned Amount (including net deforestation emissions in 1990)	566,786,410	566.8
QUELRO in %	99.5	
Assigned amount ((8 x base year emissions for calculation of assigned amount) x (99.5))	4,511,619,826 including GHG emissions from conversion of forests (deforestation)	4,511.6
Approach used to calculate the average annual emissions for the first three years of the first commitment period ¹⁶	The GHGs, sectors and source categories as used to calculate the assigned amount for the second commitment period	
Article 3.7 ter calculation (N.B., only a positive difference will result in cancellation of assigned amount)	-237,336,202	-237.3
Limitation on the additions to Australia's assigned amount resulting from forest management under Article 3.4	117,214,453	117.2

Australia submitted a report to facilitate the calculation of the assigned amount for the second commitment period to the secretariat, following the rules set out in Decision 2/CMP.8. These reports were subject to a technical review by an expert review team. Australia's review took place in September 2016 and resulted in a calculation of Australia's CP2 assigned amount¹⁷ which, once recorded in the compilation and accounting database, becomes fixed for the commitment period.¹⁸

4. Cancun Agreement Pledge – 2020

Under the **Cancun Agreement in 2010**, Australia presented a quantified economy-wide emission reduction target by 2020 of -5% up to -15% or -25% below

¹⁵ Id. and FCCC/IRR/2016/AUS, Report on the review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol of Australia <https://unfccc.int/sites/default/files/resource/docs/2017/irr/aus.pdf>

¹⁶ Parties may elect to calculate average annual emissions for the first three years of the first commitment period, for purposes of Article 3.7ter's cancellation provision, by including either (1) the gases and sources listed in Annex A to the Kyoto Protocol, or (2) the GHGs, sectors and source categories used to calculate the assigned amount for the second commitment period. The opportunity to make such an election was hard fought by Australia in Paris, as it enables Australia to include deforestation emissions in its calculation of emissions for each of these three years, avoiding a cancellation of a portion of its assigned amount under 3.7ter. This election was permitted in exchange for Australia's support for a 1.5 global goal under the Paris Agreement, which it had previously resisted. See "Paris UN Climate Conference 2015: Australia backs target of limiting warming to 1.5 degrees", The Sydney Morning Herald, December 6, 2015.

¹⁷ See FCCC/IRR/2016/AUS, Report on the review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol of Australia.

¹⁸ Decision 3/CMP.11, para 3, operating in conjunction with decision 13/CMP.1 para 10.

2000 level.¹⁹ The original communication of this pledge from Penny Wong to UNFCCC Executive Secretary DeBoer, contains the following elaboration:

Australia will reduce its greenhouse gas (GHG) emissions by 25 per cent compared with 2000 levels by 2020 if the world agrees to an ambitious global deal capable of stabilizing levels of GHGs in the atmosphere at 450 ppm carbon dioxide equivalent (CO₂ eq) or lower. Australia will unconditionally reduce its emissions by 5 per cent compared with 2000 levels by 2020 and by up to 15 per cent by 2020 if there is a global agreement which falls short of securing atmospheric stabilization at 450 ppm CO₂eq under which major developing economies commit to substantially restraining their emissions and advanced economies take on commitments comparable to Australia.²⁰

More caveats followed,²¹ as did a number of efforts to recast this target, settling on an unconditional 5% reduction from 2000 levels, using a 2013-2020 budget approach, and a medley of different Convention and Kyoto Protocol accounting approaches -- some different for purposes of measuring emissions and for purposes of measuring progress. This mix of approaches is identified in the Technical Review Report of Australia's Third Biennial Report.²²

Significant elements that impact Australia's effective 2020 mitigation effort are: (1) its decision not to move from a -5% target to a -15% reduction target; (2) its decision to address the -5% target through a budget based approach rather than as a single year target; and (3) its decision to incorporate into this budget the effects of the Australia clause and its CP1 108 QUELRO, through Australia's choice of an artificial starting point for setting the straight line trajectory establishing its 2013-2020 budget.

Australia explains that it assesses its progress towards its 2020 target using an emissions budget for 2013 to 2020.²³ It explains that a trajectory to achieve the emissions budget is calculated by taking a linear decrease from 2010 to 2020, beginning from the Kyoto Protocol first commitment period target level, which was 108 per cent of 1990 levels (583 MtCO₂-eq) as calculated in Australia's latest National Inventory Report submission, and finishing at five per cent below 2000 levels in 2020.²⁴

While Australia's -5% reduction target for 2020 is expressed relative to 2000 emission levels including LULUCF²⁵, its 2013-2020 budget does not start with a figure for actual 2000 emission levels, actual 2010 emission levels or actual 2013 emission levels (523

¹⁹ Available at https://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/australiacphaccord_app1.pdf

²⁰ Id.

²¹ Further caveats were subsequently added. See Decision 1/CP.16 (2011), referencing FCCC/CP/2010/7/Add.1, referencing FCCC/SB/2011/INF.1. See also <https://unfccc.int/topics/mitigation/workstreams/pre-2020-ambition/compilation-of-economy-wide-emission-reduction-targets-to-be-implemented-by-parties-included-in-annex-i-to-the-convention>: "In defining its targets for 2020, Australia considered that these targets refer to Australia's net emissions from the sector and source categories included in Annex A of the Kyoto Protocol as well as from afforestation, reforestation and deforestation activities, for the base year (2000) and 2020. The 25% target is conditional to the inclusion of forests (reducing emissions from deforestation and forest degradation in developing countries) and the land sector in the global agreement, while the 15% target is conditional on progress for their inclusion". Further, "The 15% target is conditional to access on deeper and broader functional carbon markets. The 25% target is conditional on global action that mobilizes greater financial resources, including from major developing economies, and results in fully functioning global carbon markets". See FCCC/TP/2011/1, Quantified economy-wide emission reduction targets by developed country Parties to the Convention: assumptions, conditions and comparison of the level of emission reduction efforts (June 3, 2011).

²² FCCC/TRR.3/AUS, Report on the technical review of the third biennial report of Australia (October 2, 2018).

²³ See Australia's Emissions Projections 2018, at 38.

²⁴ Id.

²⁵ 547 MtCO₂e or 536 MtCO₂e depending on whether the 2018 or 2019 projections are used.

MtCO₂e), or even **the average of Australia's inflated CP1 budget under the Kyoto Protocol (592 MtCO₂e/yr²⁶)**.

Instead, to generate a starting point for its budget calculation in 2010, the calculation applies the nominal 108% increase formula from the first commitment period but chooses to apply this formula to the total of "land use change and forestry" emissions -- which are significantly higher than the category of land-use change emissions to be used in the operationalisation of Article 3.7) (see Figure 2).

It is important to note that the Cancun target budget calculation changes with each annual projection and has increase significantly from the 2018 to the 2019 projections.

In the December 2018 projections the 1990 land-use change emissions estimated for this calculation were 163 MtCO₂eq and December 2019 projections 185 MtCO₂eq. These numbers are to be compared to land use change emissions used in the CP1 calculated assigned amount of 131.5 MtCO₂e (See Table 2) and the value of 148.2 MtCO₂e used in the CP2 assigned amount calculation (which is already 12% higher than in the original CP1 calculation estimates) (See Table 3). The December 2018 (2019) projections estimate of land use emissions for 1990 result in an emission starting point in 2010 of 629 (653 MtCO₂e), some 6% (10%) above the already inflated first commitment period average annual allowed emissions (average of Assigned Amount or 592MtCO₂e²⁶). The new December 2019 projections revised land and use emissions for 1990 result in a higher budget.

As a consequence, Australia's Cancun target budget calculation has increased from the December 2018 to the December 2019 projections due to the increase in 1990 deforestation emissions estimate (even though the 2000 emissions estimate is lower in the 2019 projection report the increase in 1990 is larger). The budget calculated for 2013-2020 in the 2018 Projection report is 4488 MtCO₂eq ("target trajectory", table 1, 2018 Projection report), and has increased to 4508 MtCO₂eq in Projection Report 2019.

Parties recently raised t concerns about the choice of start point for Australia's 2013-2020 budget during Australia's multilateral International Assessment and Review (IAR) process.²⁷

Australia's Cancun pledge budget uses a starting point that borrows from the Kyoto Protocol the 8% emissions increase in emissions Australia allowed itself in the first Kyoto accounting period, as well as the so-called Australia Clause secured under the Kyoto Protocol. These elements have the combined effect of enlarging Australia's 2020 Cancun Agreement pledge emissions budget substantially, and consequently reducing Australia's required mitigation effort substantially. If Australia had used actual 2010 emission levels, or actual 2013 emission levels, its 2020 Cancun

²⁶ Australia's CP1 Assigned amount was 2,957.6 MtCO₂e ((5 x base year emissions for calculation of assigned amount) x (1.08)) and hence the average is 592MtCO₂e/yr.

²⁷ See A compilation of questions to - and answers by - Australia exported 11 June 2019 by the UNFCCC Secretariat , available at https://unfccc.int/sites/default/files/resource/SBI50_AUS_MA_QA.pdf

Agreement budget would be significantly lower -- and the amount of “overachievement” significantly smaller.

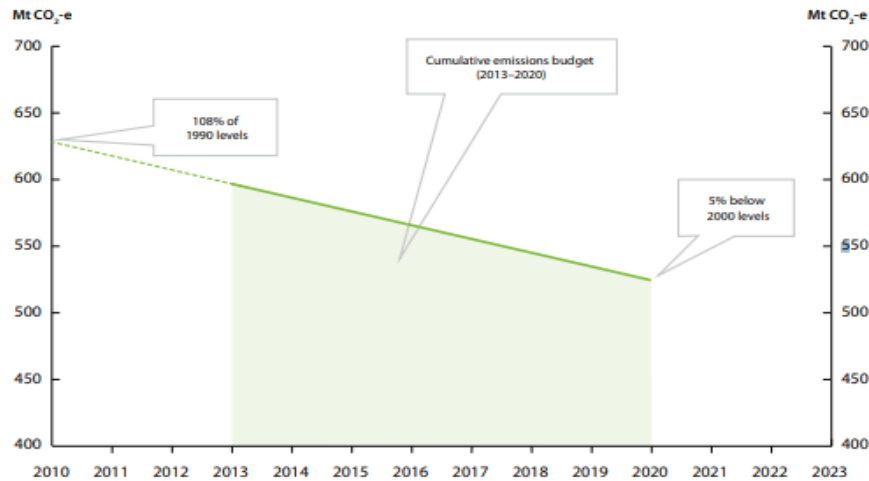


Figure 2 Approach taken by the Australian government to develop its Cancun 2020 Pledge budget. Taken from Figure 16 in the December 2018 government projections.

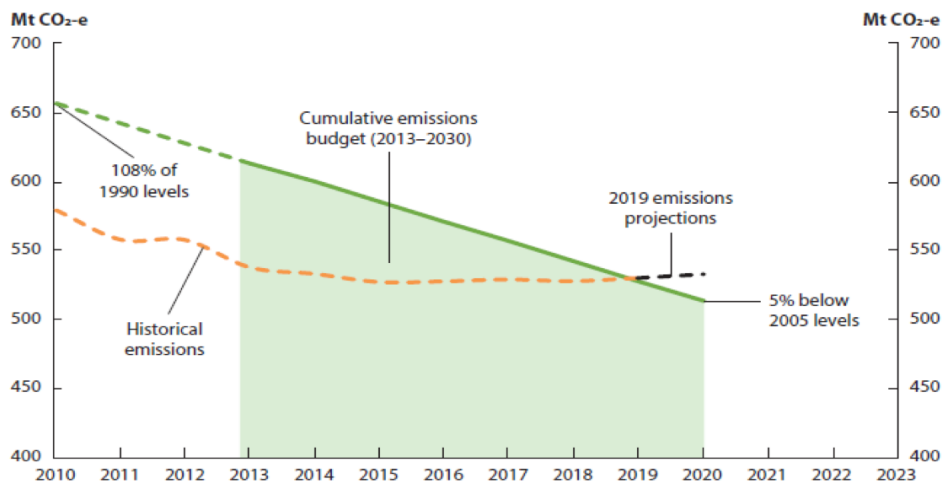
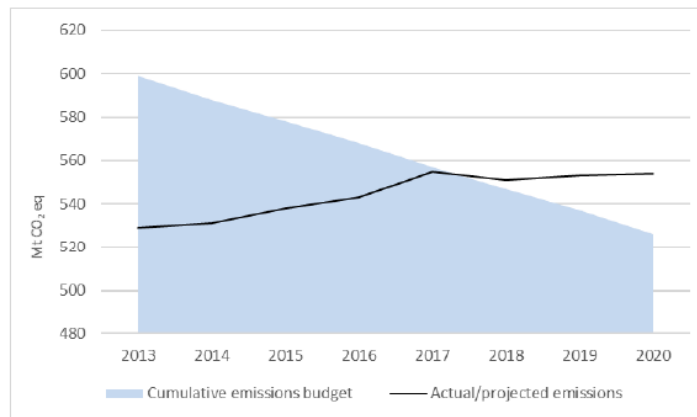


Figure 3 Approach taken by the Australian government to develop its Cancun 2020 Pledge budget. Taken from Figure 28 in the December 2019 government projections.

The Technical Review Report of Australia’s Third Biennial Report provides a useful depiction of Australia’s actual and projected emissions from 2013-2020 as compared to this constructed budget. See Figure 1 below, from FCCC/TRR.3/AUS:

Figure 1
Net greenhouse gas emissions compared with the cumulative emission budget for the period 2013–2020



Source: prepared by the ERT during the review, based on the information reported in the BR3 and provided during the review week.

Figure 2. Net GHG emissions compared with the cumulative emission budget for the period 2013–2020. Taken from Figure 1 the Report on the technical review of the third biennial report of Australia at p. 8.

5. Paris Agreement Nationally Determined Contribution - 2021 - 2030

Australia's Paris Agreement target is a 26–28% reduction below 2005 levels by 2030, covering 100% of the greenhouse gases and removals in Australia's national GHG inventory. Australia states in its NDC its intention to account based on UNFCCC inventory reporting categories, and that it assumes that accounting provisions under the PA will preserve the integrity of the agreement by ensuring that claimed reductions are genuine and not double counted.²⁸

Australia's methodology for calculating the emission reductions required to meet the 26 and 28% reduction targets, and accompanying trajectory budgets, may be found in Australia's Emissions Projections 2018.

B. Australia's actual domestic emission levels and projected emission levels

Australia's latest National Inventory Report was submitted in May 2019. It presents provisional inventory data for 2017 that have not yet been reviewed.²⁹ The document contains multiple sets of emission figures:

- One set of figures to satisfy **Convention** reporting obligations, prepared using UNFCCC sectoral classifications and presented both with and without LULUCF emissions

²⁸ Australia's Intended Nationally Determined Contribution to a new Climate Change Agreement | August 2015 (Accounting approach "Australia intends to account based on UNFCCC inventory reporting categories using a net-net approach. Australia will apply IPCC guidance for treatment of natural disturbance and variation. Australia's INDC assumes that accounting provisions under the Paris agreement will: - Preserve the integrity of the agreement by ensuring claimed emissions reductions are genuine and are not double counted; and - Recognise emissions reductions from all sectors.")

²⁹ National Inventory Report 2017, Volume 1, The Australian Government Submission to the United Nations Framework Convention on Climate Change, Australian National Greenhouse Accounts.

- A set of figures to satisfy **Kyoto reporting obligations**, applying Kyoto classifications and accounting rules (Table ES.03 and ES.04)³⁰
- A set of figures used to track progress with its **Cancun Agreement pledge** applying a combination of Convention and Protocol accounting approaches (Table ES.02)³¹
- A set of figures used to track progress with its **Paris Agreement NDC** (Table ES.01), reflecting net emissions³²

Looking strictly at Convention reporting figures, in 2017 Australia's total greenhouse gas emissions, excluding the *LULUCF* sector, were **554.1 Mt CO₂eq** in 2017³³ -- an increase of **31.8% (133.8 Mt CO₂e)** above 1990 levels.

When *LULUCF* sector emissions and removals are included in the total, Australia's net greenhouse gas emissions in 2017 were **534.7 Mt CO₂-eq** -- a decrease of **11.6 % (70.2 Mt)** on net emissions recorded in 1990. In 2017, the *LULUCF* sector was a net sink of 19.4 Mt CO₂-e.

Table 4 Greenhouse Gas Emissions for Australia for the period 1990-2017 – 2017 NIR CTF Table 10 (data not yet reviewed)

Greenhouse Gas Emissions for Australia for the period 1990-2017 – 2017 NIR CTF Table 10 (data not yet reviewed)								Percent Change	
	1990	2000	2005	2010	2015	2016	2017	1990-2016	1990-2017
Without LULUCF	420,315.32	485,018.62	521,801.01	537,275.25	535,173.67	546,771.76	554,126.56	30.7	31.84
With LULUCF	604,903.78	536,153.69	610,587.52	585,955.43	531,635.84	530,430.53	534,695.45	-9.0	-11.61

Australia's emissions are projected to grow by **24-25 Mt CO₂-eq** between 2015 and 2020 and another **19-23 Mt CO₂-eq** between 2020 and 2030.³⁴

Table 5 Australian historical emissions and projections to 2030

December 2018 Projections	Historical				Projected				% change wrt 2005	% change wrt 1990
Australia's emissions trends, 1990 to 2030 (Mt CO₂-e)	1990	2000	2005	2010	2015	2020	2025	2030		
GHG excl. LULUCF	420	485	522	538	537	553	551	564	8%	34%
GHG incl. LULUCF	577	547	605	560	516	540	548	563	-7%	-2%

According to the Technical Review of the Australia's Third Biennial Report, Australia is only on track to meet its 2020 target because it is combining elements of Kyoto and Convention reporting rules. If UNFCCC classifications are used, Australia's projected

³⁰ NIR 2017, Volume 3, Chapters 11 to 15.

³¹ Id., Table ES.02 Net emissions by KP classification, Australia, 2000 and 2017 (Mt CO₂-e)

³² Id., Table ES.01 Net greenhouse gas emissions under the UNFCCC by sector, Australia, 1990, 2005, 2010, 2016 and 2017 (Mt CO₂-e), at P. xi of NIR

³³ NIR 2017, Volume 1, at 34.

³⁴ See Australia's emissions projections 2018 <https://www.environment.gov.au/system/files/resources/128ae060-ac07-4874-857e-dced2ca22347/files/australias-emissions-projections-2018.pdf> and Australia's Seventh National Communication on Climate Change at 87.

emissions in 2020 would be approximately the same level as they were in 2000.³⁵ If Australia applied the relevant Kyoto accounting elements for its 2020 target, then Australia would see a decline of 0.05% below 2000 levels in 2020.³⁶

Australia is using different assumptions for its National GHG Inventory numbers (which do not apply elements of Kyoto accounting) and for its reports on progress toward its target and future emission projections (which do use elements of Kyoto accounting).³⁷

C. Carryover rules under the Kyoto Protocol and Paris Agreement

1. Kyoto Protocol first commitment period carryover rules and scale of potential carryover for Australia following conclusion of the first commitment period

Units under the KP are fungible, which is to say that a variety of units have the same equivalence and all can be retired toward a Party's quantified commitment equally. AAUs, CERS, RMUs from land sector activities, and ERUs fall into this category. AAUs, CERS and ERUs could be acquired from other Parties. In the first commitment period, RMUs (removal units) could be generated domestically from elected land sector activities, including forest management, with a 'forest management cap' that applied to both additions and subtractions from a Party's assigned amount.³⁸

While these units were fungible for use toward targets, not all units could be carried over to subsequent Kyoto commitment period if they were not retired.

Article 3.13 of the Kyoto Protocol provides that "If the emissions of a Party included in Annex I in a commitment period are less than its assigned amount under this Article, this difference shall, on request of that Party, be added to the assigned amount for that Party for subsequent commitment periods." By decision 13/CMP.1, Parties agreed to the following restrictions and limitations on carryover for the first commitment period:

- AAUs could be carried over without limitation
- CERS and ERUs from emission reduction projects could be carried over up to a quantity equal to 2.5% of the Party's initial assigned amount
- Any units issued on the basis of a LULUCF activity, including RMUs, tCERS, ICERS, and ERUs generated by Joint Implementation LULUCF projects (and converted from RMUs) may not be carried over.

Under the KP, if a Party has AAUs, ERUs or CERS remaining in its registry after it has retired a sufficient number of units to cover its Annex A emissions for the period, it may ask that these units be carried over to the subsequent CP, consistent with existing rules. The Party must include a list of these units by serial number in its True Up

³⁵ FCCC/TRR.3/AUS, Report on the technical review of the third biennial report of Australia (October 2, 2018), para 61.

³⁶ Id.

³⁷ Id., para. 17.

³⁸ See Kyoto Protocol Reference Manual on Accounting of Emissions and Assigned Amount at 14-15. Australia did not elect Article 3.4 activities for the first KP commitment period, but did for the second (forest management, cropland management, grazing land management and revegetation. See FCCC/TRR.3/AUS, para. 87.

Report.³⁹ After the ERT reviews the True up Report, it confirms the number available for carryover. See Section 7.6 of the Accounting Manual

At the end of the first commitment period, Australia had **127,650,775 AAUs** available for carryover to CP2, and **21,768,290 CERs** available for carryover to CP2.⁴⁰ Taken together, **149,419,065** units were available. Australia's True Up Report requested carryover in these amounts and these calculations were subsequently approved for carryover.

Table 6 Total available for carryover to KP CP2

Units ⁴¹	tCO ₂ e	MtCO ₂ e
AAUs	127,650,775	127,650.8
CERs	21,768,290	21,768.3
ERUs	0	0
Total	149,419, 065	149,419.1

Australia's [True Up Report](#) for CP1 provides the serial numbers of the CERs requested for carryover, which enables a review of the projects underlying these units and the volumes of units from each. These CERs come from 30 different countries and from a wide array of project types.⁴² Substantial volumes come from large hydro projects – a project type considered least likely to present reductions that are "additional",⁴³ and hence potentially problematic for environmental integrity. Further substantial volumes come from a coal efficiency project at an Adani facility in India, contested by local stakeholders - at a time when the IPCC has spoken to the need to phase out coal. Information on each of the True Up Report's underlying projects is available at the UNFCCC's CDM web interface.⁴⁴

2. Kyoto Protocol second commitment period accounting rules and relevance to Australia's "proposed carryover"

Kyoto Parties altered land sector accounting rules for the second commitment period. Forest management accounting became mandatory. Additional land sector activities could be elected for accounting, or were mandatory if they had been elected in CP1. Parties were required to provide forest management reference levels, and are required to constrain the volume of removals used toward their targets by a calculated forest management cap.⁴⁵

³⁹ These serial numbers indicate among other things the host party, vintage of reduction and relevant commitment period.

⁴⁰ FCCC/KP/CMP/2016/CAR/AUS, Final compilation and accounting report for Australia for the first commitment period of the Kyoto Protocol, (2 August 2016)

⁴¹ Id.

⁴² [True Up Period Report attachment: Information on the serial numbers of Kyoto units request to be carried over to the second commitment period \(XLSX - 55.82 KB\)](#) available at <https://www.environment.gov.au/climate-change/climate-science-data/greenhouse-gas-measurement/publications/kyoto-true-up-report> (referring to Host Parties AM, AR, BR, CL, CN, CO, CR, EC, EG, GE, GT, HN, ID, IL, IN, JO, KE, KR, MX, MY, NG, PE, PH, PK, TH, TN, UY, UZ, VN, ZA).

⁴³ See Cames, et al, How additional is the Clean Development Mechanism? Analysis of the application of current tools and proposed alternatives Berlin, March 2016 available at https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf (at p 110-114)

⁴⁴ See, e.g., hydro project in Vietnam in 2006 (VN-152), supercritical coal-fired power plant project (IN-2716), implemented by Adani Power Ltd. and objected to by multiple Indian NGOs. <https://carbonmarketwatch.org/publications/open-letter-regarding-authorization-and-approval-letter-for-cdm-project-2716-grid-connected-energy-efficient-power-generation/>

⁴⁵ This cap is 3.5 per cent of the base year GHG emissions excluding LULUCF times the duration of commitment period in years. See 2/CMP.7, para.13: "For the second commitment period, additions to the assigned amount of a Party resulting from forest management under Article 3, paragraph 4, and from forest management project activities undertaken under Article 6, shall not

Kyoto Parties also revamped the carryover rules for the second commitment period to address the growing problem of surplus AAUs. The revised rules aimed to manage surplus from the first commitment period and avoid the creation of substantial surplus in the second commitment period. Two innovations included: (1) the establishment of Previous Period Surplus Reserve (PPSR) accounts to manage CP1 surplus carried over to CP2; and (2) a new Article 3.7ter, which aimed to truncate the establishment of new CP2 surplus derived from unambitious CP2 targets, by trimming assigned amount for certain Parties.

As a result of these new rules, any carryover of surplus AAUs from KP CP1 to KP CP2 would see these AAUs deposited into a new Previous Period Surplus Reserve for CP2 for each Party with an Annex B target for CP2. Once there, these AAUs are only available for use up to the extent by which a Party may fall short of its CP2 target, and only available during the true up period. These units are not available for use where there is no subsequent commitment period. These rules constrain Australia's use of surplus CP1 AAUs.

Decision 1/CMP.8, paras. 23-25, set out the process for carryover in CP2 as follows (emphasis added):

*23. Decides that each Party included in Annex I with a commitment inscribed in the third column of Annex B as contained in annex I to this decision **shall establish a previous period surplus reserve account** in its national registry;*

24. Decides also that where the emissions of a Party referred to in paragraph 23 above in a commitment period are less than its assigned amount under Article 3, the difference shall, on request of that Party, be carried over to the subsequent commitment period, as follows:

*(a) **Any ERUs or CERs** held in that Party's national registry that have not been retired for that commitment period or cancelled may be carried over to the subsequent commitment period, up to a maximum for each unit type of 2.5 per cent of the assigned amount calculated pursuant to Article 3, paragraphs 7 and 8;*

*(b) **Any AAUs** held in that Party's national registry that have not been retired for that commitment period or cancelled shall be added to the assigned amount for that Party **for the second commitment period. That part of a Party's assigned amount consisting of AAUs held in that Party's national registry that has not been retired for that commitment period or cancelled shall be transferred to its previous period surplus reserve account for the subsequent commitment period, to be established in its national registry;***

exceed 3.5 per cent of the base year greenhouse gas emissions excluding land use, land-use change and forestry pursuant to Article 3, paragraphs 7 and 8, or any amendments thereto, times the duration of the commitment period in years." The value of this figure for Australia for CP2 is 117,214.453 Kt

*25. Decides further that **units in a Party's previous period surplus reserve account may be used for retirement during the additional period for fulfilling commitments of the second commitment period up to the extent by which emissions during the second commitment period exceed the assigned amount for that commitment period**, as defined in Article 3, paragraphs 7 bis, 8 and 8 bis, of the Kyoto Protocol. (emphasis added)*

26. Decides that units may be transferred and acquired between previous period surplus reserve accounts. A Party referred to in paragraph 23 above may acquire units from other Parties' previous period surplus reserve accounts into its previous period surplus reserve account up to 2 per cent of its assigned amount for the first commitment period pursuant to Article 3, paragraph 7 and 8;

The second commitment period has yet entered into force and as a result, no AAUs have been issued for CP2 based on the calculation of Australia's assigned amount. According to the most recently released SEF tables and CAD, Australia holds no CP2 AAUs in its registry. It also holds no AAUs in its PPSR. Australia's 2017 NIR, submitted in May 2019, likewise reported that at year end 2018, Australia held no AAUs in its Party holding account and no AAUs in its PPSR account. Australia did hold 15,846,066 CERs: 13,557,017 in Party holding accounts and 2,289,049 in a voluntary cancellation account.⁴⁶

Australia's Seventh National Communication confirms that Australia's first commitment surplus AAUs will be deposited into its PPSR account.⁴⁷ According to the CP2 carryover rules set out in 1/CMP.8, **once in Australia's PPSR account, as required, these units may only be used during the true up period, and then, only up to the extent by which Australia's emissions in CP2 exceed its CP2 assigned amount. if Australia's emissions do not exceed its CP2 AA, it cannot access these surplus units.** Hence, if as Australia states, it will have CP2 overachievement, then any AAUs in its PPSR will be unavailable for use under the KP's own terms. Moreover, these units will ultimately be cancelled pursuant to 13/CMP.1:

*36. For the purpose of the second commitment period, each Party included in Annex I with commitments described in the third column of Annex B **may carry over to the subsequent commitment period, in accordance with paragraph 15 of the annex to decision 13/CMP.1 and paragraphs 23–26 of decision 1/CMP.8, ERUs, CERs and/or AAUs held in its registry, that have not been cancelled or retired for a***

⁴⁶ See NIR Vol. 3 at 84, Table 12.20 SEF Table 4, Total quantities of Kyoto Protocol units by account type at end of reported year 2018 and see FCCC/KP/CMP/2019/6/Add.1 (Annual compilation and accounting report for Annex B Parties under the Kyoto Protocol for 2019) (October 24, 2019) available at <https://undocs.org/FCCC/KP/CMP/2019/6/ADD.1>

⁴⁷ Australia's Seventh National Communication on Climate Change at 218, 220.

*commitment period or that are not held in its previous period surplus reserve account. Each ERU, CER and/or AAU carried over in this manner shall maintain its original serial number and shall be valid in the subsequent commitment period. ERUs, CERs, AAUs and RMUs held in the national registry of a Party **that have not been carried over in this manner** or retired for the commitment period **shall be cancelled** in accordance with paragraph 12 (f) of the annex to decision 13/CMP.1 once the additional period for fulfilling commitments has ended.*⁴⁸

There is no third commitment period under the Kyoto Protocol. As a result, there will be no “subsequent commitment period” for purposes of Kyoto Protocol Article 3.13 following CP2. To the extent surplus CP1 AAUs in a Party's PPSR for CP2 are not needed to bridge a gap to CP2 compliance, these AAUs would remain in the CP2 PPSR, with any excess unneeded to close that gap cancelled by operation of rules relating to the mandatory cancellation of units that are not retired or carried over, once CP2's true up period terminates.⁴⁹

To the extent there is any ambiguity in the relevant provisions, it is only with respect to whether "subsequent period" speaks to CP2 or CP3. Regardless, CP2 is not currently in force, and there will be no CP3 under the Protocol. The Kyoto rule set has created AAUs, but these units are only a creation of the Kyoto rule set for purposes of assessing compliance with KP commitments.

⁴⁸ See 3/CMP.11 and 13/CMP.1, para 36.

⁴⁹ See Kyoto Protocol Reference Manual at 83; Kyoto Protocol Second Commitment Period User-Friendly Document at 80; 13/CMP.1, paras 12e, 15, 36.

3. Paris Agreement accounting rules and relevance to Australia's "proposed carryover"

Article 4 of the Paris Agreement requires each Party to communicate a Nationally-Determined Contribution every five years. Of particular relevance is that each NDC is to be successively more ambitious, and to represent each Party's "highest possible ambition." Article 4.2 provides that Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

The Parties to the Paris Agreement have adopted NDC accounting guidance under 4/CMA.1. This guidance only becomes mandatory upon Parties for second and subsequent NDCs, though Parties may elect to apply these rules to their first NDCs.⁵⁰ Regardless, by decision 18/CMA.1, para 71, each Party is required to clearly indicate and report its accounting approach for the first NDC, including how it is consistent with Articles 4.13 and 4.14 of the Paris Agreement. Article 4.13 provides, in turn, that in accounting for anthropogenic emissions and removals corresponding to their NDCs, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting, in accordance with guidance adopted by the CMA. Article 4.14 encourages Parties to take into consideration existing methods and guidance under the Convention in this context.

Further, under 18/CMA.1 para. 75, each Party is required to provide "(f) Methodologies associated with any cooperative approaches that involve the use of internationally transferred mitigation outcomes towards its NDC under Article 4, consistent with CMA guidance on cooperative approaches under Article 6". This guidance under Article 6, while it has not yet been agreed, is required to ensure environmental integrity and the avoidance of double counting, and will do so at least in part through a process of corresponding adjustments. See decision 1/CP.21, para. 36.

The significance of these provisions is that while there are no accounting rules in place for the Australia's first NDC, Australia will nevertheless have to explain how its accounting approach promotes so-called "TACCC" principles, avoids double counting and ensures environmental integrity.

Moreover, Australia's own NDC states that it "assumes that accounting provisions under the Paris Agreement will: - Preserve the integrity of the agreement **by ensuring claimed reductions are genuine and are not double counted**".

Any methodology Australia presents that purports to use pre-2021 CERs toward its 2030 target will be difficult to defend against these principles, unless a decision is taken by the CMA that explicitly permits their use. These CERs reflect emission reductions that have already been achieved, and that have been reflected in the

⁵⁰ Decision 4/CMA.1, Annex II, para. 72.

inventories of their developing country host Parties, who likely have their own Cancun pledges and now NDCs. For this reason, use of pre-2021 CERs under the Paris Agreement, outside the Kyoto Protocol context, appears to present a classic case of "double counting". This will be so unless host Parties agree to undertake corresponding adjustments reflecting the transfer of these reductions to Australia through a laborious re-authorisation process, through which they express their willingness to make up these same tons conveyed to Australia via these CERs by adding additional mitigation effort to their current NDC mitigation efforts.⁵¹

Similarly, AAUs cannot be said to represent emission reductions, let alone "genuine" emission reductions. AAUs represent allowed emissions within the fixed Kyoto Protocol rule set. There is no reason to consider these units portable to another treaty process, or usable outside their own prescribed timeframe, unless by consensus the Parties to the Paris Agreement so decide. Moreover, as explained above, any pre-2021 surplus AAUs Australia may have remaining are required to be held in a PPSR account for the second commitment period. PPSR accounts were created with the express intention to remove surplus AAUs from circulation and limit the timeframe of their use under the KP. In other words, even KP rules do not endorse the use of surplus CP2 AAUs in PPSR accounts beyond the true up period for CP2. And there has been no effort to negotiate a third KP commitment period into which they could conceivably be carried over, even if the rules allowed.

D. Current scale and source of Australia's "proposed carryover"

Under the Kyoto Protocol, Australia's True Up Report requested carryover of **127,650,775 AAUs** and **21,768,290 CERs** from the first Kyoto commitment period (2008-2012) to the second Kyoto commitment period (2013-2020). These amounts have been approved for carryover.⁵²

Since that time, Australia has also estimated that it may overachieve its KP CP2 target by **240 Mt CO₂-eq.** See [Australia's 2018 Emission Projections](#), Table 2 (referring to overachievement of KP targets). The precise amount by which Australia may overachieve its second commitment period target under the Kyoto Protocol will only be known following the conclusion of the second commitment period, well after the end of 2020, and there are significant open questions surrounding this issue.

In its December 2018 projections the Government indicated it estimated a carryover 367 MtCO₂e of Kyoto units. To cross check this the most recent National Inventory

⁵¹ Paris Agreement Article 6.3 provides that the use of internationally transferred mitigation outcomes to achieve NDCs under the Agreement shall be voluntary and authorized by participating Parties. Both Article 4 and Article 6 require the Parties to ensure the avoidance of double counting. Accordingly, Australia would have to seek specific permission to use reductions that have taken place in other countries (e.g., Brazil, China etc) toward its own NDC.

⁵² FCCC/KP/CMP/2016/TPR/AUS, [Report on the individual review of the report upon expiration of the additional period for fulfilling commitments \(true-up period\) for the first commitment period of the Kyoto Protocol of Australia](#) (March 31, 2016) at 6-7.

Report (NIR) was examined, in particular the present estimate of Australia's net position on Kyoto units for the period 2013-2017, and a likely projection for the remainder of CP2, until 2020. The surplus is the difference between Kyoto units held and the National inventory.

The Kyoto units held are the assigned amount (see Table 3), the CP1 Carryover (Table 6) and the RMUs (credits generated by Land use change activities under Articles 3.3 and 3.4 of the Kyoto Protocol). As of the end of 2017 the latter added 317 MtCO₂e to the Kyoto units held so that the total is 4.98 GtCO₂e for the commitment period. As of 2017 the maximum for Rmu credits had been reached for CP2.

It should be noted that under Kyoto Protocol rules, the forest management cap for CP2 for Australia is 117,214.453 ktCO₂eq.⁵³ The Review Report of Australia's BTR notes that while Australia is using LULUCF classifications under the Kyoto Protocol for its 2020 target, it is not using the usual Kyoto Protocol accounting rules, for example, the forest management reference level required under the Kyoto Protocol for CP2 – or the cap on forest management.⁵⁴

Table 7 Table ES.03 with Kyoto emissions and removals for 2013-2017 from the most recent (2019) National Inventory Report (NIR)

Table ES.03 Emissions and removals associated with Articles 3.1, 3.3 and 3.4 of the Kyoto Protocol, Australia, 2013-2017 (Mt CO₂-e)

Sector and Subsector	Emissions Mt CO ₂ -e				
	2013	2014	2015	2016	2017
1 Energy	414.5	408.7	420.3	432.1	435.6
2 Industrial processes and product use	31.5	31.2	32.8	33.0	33.7
3 Agriculture	72.1	72.6	70.1	69.3	73.0
5 Waste	12.4	12.5	11.9	12.4	11.8
Deforestation (a)	35.2	36.9	26.7	29.1	26.1
National inventory emissions	565.7	561.9	561.9	575.9	580.2
RMU credits generated by Article 3.3 and 3.4 activities					
Afforestation/Reforestation (a)	-25.9	-25.9	-25.0	-28.3	-29.4
Article 3.4 activities (a)	-35.0	-37.0	-42.0	-50.8	-41.3
Total RMU credits (b)	-61.0	-62.9	-67.0	-79.1	-70.7
Kyoto Protocol Total (National inventory emissions plus RMU credits)	504.7	499.0	494.9	496.8	509.5

(a) Australia has elected to account for Article 3.3 activities on an annual basis, and Article 3.4 activities at the end of CP2.

(b) Accounting quantity in accordance with decisions 2/CMP.7 and 3/CMP.11 and estimates for *Cropland Management and Grazing Management* were adjusted for the emissions reported under Forest Conversion in the UNFCCC in 1990 for conversions up to 31 December 1989, and recorded in the report used to calculate the assigned amount, in order to avoid double counting.

Note: The RMU credits generated by Land use change activities under Articles 3.3 and 3.4 of the Kyoto Protocol are capped due to a cap on forest management credits. In this table the RMU units are shown as totalling 341 MtCO₂e, however it is noted in section 11.6.6.2 and its table 11.27 that, in effect, Australia has as of 2017 reached its maximum for RMU credits. This is reported in Table ES.04 of the NIR as 317 MtCO₂e.

⁵³ FCCC/IRR/2016/AUS, [Report on the review of the report to facilitate the calculation of the assigned amount for the second commitment period of the Kyoto Protocol of Australia](#) (April 26, 2017) at 11.

⁵⁴ FCCC/TRR.3/AUS at para. 16.

On the other side of the equation, the National inventory consists of emissions from energy, industry, agriculture and waste (Article 3.1 sources and gases) plus deforestation emissions. Table 8 shows the data until 2017 and then projects these terms for the remainder of CP2, until 2020. The net result is a surplus of 374 MtCO₂e of Kyoto units, which is close to the December 2018 government estimate of 367 MtCO₂e. The December 2019 projections estimate a CP2 carryover of 411 MtCO₂e, about 44 MtCO₂e larger than in 2019. If Article 3.1 emissions and/or deforestation emission are lower than the trend estimated here then the surplus would be higher.

Table 8 Actual and projected Kyoto second commitment period surplus for Australia

Kyoto Units	2013-2017 Actual	2013-2017 Actual	2013-2020 Projected
	τCO ₂ e	MtCO ₂ e	MtCO ₂ e
CP2 Assigned Amount	4,511,619,826	4,512	4,512
CP1 Carry over units		-	-
AAUs	127,650,775	128	128
CERs	21,768,290	22	22
CP2 RMOUs (2013-2017)	317,178,355	317	317
Total Kyoto units (1)	4,978,217,246	4,978	4,978
National inventory emissions		-	
2013-2017 (2)	2,845,524,201	2,846	4,605
Net position (1) - (2)	2,132,693,045	2,133	374

Source: For 2013-2017 actuals data is from Table ES.04 Kyoto Protocol second commitment period net position. Projected 2013-2020 is estimated based on trends from table ES.03 (Table 7 above).

E. Impact of "proposed carryover" on Australia's target

Australia's Paris Agreement NDC target is a 26-28% reduction below 2005 levels by 2030, which it states is to be developed into an emissions budget. Australia is facing a substantial mitigation gap as current policies do not meet the 26-28% reduction target. Australia is proposing that 367-411 MtCO₂-eq from Kyoto "overachievement" be effectively added to these 2021-2030 budget figures, allowing cumulative emissions to rise in excess of the 26% and 28% budgets by the amount of 367-411 MtCO₂-eq (or possibly by whatever overachievement may ultimately be seen in the Kyoto second commitment period). The effect of this carryover – an accounting addition - would be to reduce the real emission reductions required of Australia in 2030 from a 26-28% reduction.

The role of the proposed carryover in 'closing' this gap depends on which of the

Australian Government projections are used.

Australia's December 2018 projections sets out a budget for Paris Agreement achievement over the 10-year period from 2021-2030, represents as consistent with its 26% and 28% reduction targets. **For 26%, this budget is 4,800 MtCO₂-eq and for 28% this budget is 4,733 MtCO₂-eq.** In these 2018 projections Australia estimated carryover at 367 MtCO₂-eq.

For the December 2019 projections the budget for 26% and 28% reduction targets is **4,777 MtCO₂-eq and is 4,710 MtCO₂-eq respectively.** In these projections Australia has increased estimated carryover to 411 MtCO₂-eq.

Australia's proposed use of KP units or "overachievement" would substantially cut the 2030 emission reduction required of Australia. Based on the December 2018 projections, the use of carryover would require emissions reductions 2030 to be **only 14.9 and 14.3% reduction below 2005 levels respectively.** For the December 2019 Projections, the increased carryover (+44 MtCO₂e) combined with the slightly lower budget (-23 MtCO₂e) means the required reductions are slightly lower **at 13.9% and 13.3% reduction below 2005 levels by 2030 for the original 26% and 28% targets respectively.**

In terms of the cumulative emission budget from 2021-2030, the December 2018 carryover 367 MtCO₂e represents 7.6% of the 26% reduction budget and 7.8% of the more ambitious 28% reduction budget. The December 2019 carryover estimate of 411 MtCO₂e represents 8.6% of the 26% reduction budget and 8.7% of the more ambitious 28% reduction budget.

Australia's December 2018 projections indicate emissions levels of about 7% below 2005 levels in 2030 are expected from current policies, with cumulative emissions of 5,487 MtCO₂e, some 687 MtCO₂e above the budget for a 26% reduction— even with carryover counted there would be a gap of 320 MtCO₂e. In these projections Australia estimated its 2030 emission levels consistent with the 26% target as 447 MtCO₂e but projected its 2030 emissions based on policies at 563 MtCO₂e.

Under the December 2018 projections, even if carryover of 367 MtCO₂e were legitimate the mitigation gap would not be closed.

The new December 2019 projections substantially lower the projected emissions to 2030, with emissions levels about 16% below 2005 levels in 2030. The estimated 2030 emission levels under these new policy projections are lower at 511 MtCO₂e⁵⁵. The cumulative emissions over this period are reduced to 5,169 MtCO₂e, some 318 MtCO₂e lower than in the December 2018 projections. These cumulative emissions projections are 395 MtCO₂e higher than the budget of 4,777 MtCO₂-eq.

⁵⁵ Due to changes in its inventory the emissions levels for 2030 are different than in the December 2018 projections – in 2019 452 MtCO₂e for the 26% target and 440 MtCO₂e for the 28% target

With a carryover of 411 MtCO₂e claimed in the December 2019 projections, Australia's mitigation gap for its target would be virtually eliminated and indeed it is claiming a surplus for 2030 of about 16 MtCO₂-eq for its 26% target.

There are very significant questions surrounding the December 2019 projections given that there are substantial reductions in sectors that have no additional policies, and hence substantial uncertainty as to whether all of these reductions are realistic.

It has been noted in the press that this proposed carryover volume represents a quantum of emissions that is about 8 times larger than the combined emissions of all 16 Pacific Island Forum countries combined, including New Zealand, excluding Australia.⁵⁶

It is also useful to recall that the largest source of the claimed carryover is from the 1990 deforestation credits Australia obtained based on the Australia clause described earlier in this report, which as previously estimated amount to approximately 710 MtCO₂e in Kyoto CP1 and 1,155 MtCO₂e in Kyoto CP2, a total of around 1,860 MtCO₂e over the period 2008-2020. In other words, the claimed carryover stems from deforestation activities that occurred 30 years prior the start of commitments under the Paris Agreement.

While the quantitative impact of Australia's "proposed carryover" can certainly be calculated, any overachievement of KP targets by Australia in preceding years is irrelevant to achievement of its 2030 Paris Agreement target.

There are a number of reasons why it is not legitimate or defensible- factually, legally or from an equity perspective- for Australia to use Kyoto Protocol "overachievement" toward its Paris Agreement NDC.

First, the Kyoto Protocol is a separate treaty from the Paris Agreement. The Paris Agreement makes no mention of the possibility of carryover from the Kyoto Protocol. Nor, even, does Australia's own NDC.

Second, the Kyoto Protocol, by its own terms, does not permit the carryover of units or underlying reductions beyond the 2013-2020 second commitment period -- even within its own legal framework. There can be no carryover of AAUs to a non-existent subsequent commitment period, particularly if these units are not permitted to be transferred from their PPSR accounts. Nor can CERs be carried over for renumbering with unit identifiers reflecting a non-existent third commitment period.

Third, the Paris Agreement calls for Parties to present their highest possible ambition. The Agreement is designed to encourage ambitious targets, and use the tools of transparency and peer pressure to encourage the delivery of these targets. Parties

⁵⁶ "Australia Institute analysis adds to Pacific pile-on over Morrison's climate policy", The Conversation, August 13, 2019

have agreed to promote the principles of transparency, accuracy, consistency, comparability, completeness. They have agreed to promote environmental integrity and ensure the avoidance of double counting. This is the context in which Australia's accounting choices will be evaluated. The use of Kyoto carryover clearly contradicts this element of the Paris Agreement.

Fourth there is the issue of moral hazard: If creative accounting efforts by Australia would encourage others to engage in similar creativity, perhaps even pointing to their own historical "overachievement" of earlier unambitious pledged goals, with an eye toward minimizing their future efforts, this would undermine not just the effective ambition of the NDCs that have been presented, but also the goals, principles, fabric and machinery of the Paris Agreement itself.

For this reason, it would be preferable for Australia to openly acknowledge the challenges it faces in meeting its 2020 and 2030 targets, and to do its utmost to put in place policies and measures that can bend its emissions trajectory. Failing this, Australia would do well to support robust Article 6 rules, which it is not at present, so that going forward it has flexibility in how it meets its target, and has a credible system in place with which to do so, within the environment of a set of transparent and multilaterally agreed rules.

F. Opportunities to deal with carryover in the Paris Agreement implementation negotiations

The Alliance of Small Island States (AOSIS), the LDC Group and a number of other developed and developing countries are on the record as opposing the carryover of Kyoto units to the Paris Agreement.⁵⁷

At the June 2019 session, for example, AOSIS called for language to be inserted into the negotiating text explicitly prohibiting the use of any Kyoto units including AAUs, CERs, ERUs, RMUs etc or their underlying reductions. This was picked up in reduced form in the Chair's 6.4 text under a heading related to the CDM ("105. [Kyoto Protocol units may not be used by a Party towards its NDC.]").⁵⁸

In September 2019, AOSIS and the LDC Group put out a joint statement stating that "we cannot allow double counting, the carryover of pre-2020 Kyoto units to the Paris Agreement or other accounting loopholes to undermine our shared goals."⁵⁹

In October 2019, the LDC Group issued the Thimpu LDC Ministerial Communiqué on Climate Change that urged the completion of rules for Article 6 in Santiago that must

⁵⁷ See, e.g., Former Tuvalu PM says he was 'stunned' by Scott Morrison's behaviour at Pacific Islands Forum, The Guardian, Oct 23, 2019 (noting Pacific Leaders' opposition to Kyoto carryover).

⁵⁸ Draft CMA decision on the rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement, Version 2 of 26 June 15:30 hrs, https://unfccc.int/sites/default/files/resource/SBSTA50.DT_i11b.clean_.pdf

⁵⁹ Joint statement from Chairs of LDC Group and Alliance of Small Island States (AOSIS), 21 September 2019

"not allow the carryover of pre-2020 Kyoto units to the Paris Agreement or other accounting loopholes"⁶⁰

In addition to vocal opposition from a wider range of Parties, there are many ways to address the issues identified in this report, both inside and outside the formal negotiating process.

CMA Parties concerned with the possibility of carryover may themselves wish to propose a draft decision that expressly precludes use of Kyoto "surplus" AAUs toward Paris Agreement goals, precludes AAUs and CERs toward Paris Agreement goals, or alternatively precludes use of any pre-2021 vintage units or reductions, without being specific about which units are not permitted. They may also consider blocking any Paris Agreement decision text that could arguably be understood to permit use of pre-2021 units toward Paris Agreement goals.

CMA Parties could also propose draft decision text seeking to create a link to Article 15 and the Committee to facilitate implementation and compliance where double counting may arise from the use of credits or units by multiple Parties, or by the same Parties in multiple periods.

Under the Kyoto Protocol, Parties could propose draft decision text recalling that unused AAUs from CP1 and CP2 are to be cancelled within PPSRs and within national registries at the end of CP2's true up period.

In order to set the scene for a more public debate about the carryover issue, Parties can make interventions at the COP 25 plenary, CMA plenary and/or CMP plenary, or at the opening of UNFCCC SBSTA or SBI sessions, on the inappropriateness of carryover, encouraging Parties to act responsibly. These sessions are open to NGO observers and other accredited entities.

If a formal decision is not possible due to Paris Agreement consensus rules, like-minded Parties can also join together to express their shared understanding that AAUs do not survive the expiration of CP2, whether inside or outside PPSRs, and/or are not appropriate for use under the Paris Agreement. Heavy participation by countries and blocs of countries in such a declaration (AOSIS, LDCs, AILAC, EU etc) would reduce the political space for AAU usage. In addition like-minded Kyoto Protocol Annex B Parties could also express their shared agreement not to use carried over AAUs or Kyoto Protocol "achievement" toward Paris Agreement NDCs, seeking sign on by all other Kyoto Annex B Parties.

There are also opportunities within the Paris Agreement implementation processes to curtail or inhibit the use of carryover units. Both Article 4 and Article 6 of the Paris Agreement require the Parties to ensure the avoidance of double counting. The Paris

⁶⁰ Thimphu LDC Ministerial Communiqué on Climate Change 2019 (calling for "... robust rules under Article 6 for carbon markets, which must maintain environmental integrity, move beyond pure offsetting and deliver overall mitigation in global emissions, avoid double counting, not allow the carryover of pre-2020 Kyoto units to the Paris Agreement or other accounting loopholes, and deliver a share of proceeds from the market mechanisms for the Adaptation Fund").

Agreement requires consent from Host Parties to the use of external emission reductions or mitigation outcomes toward another Party's NDCs. Article 6.3 provides that the use of internationally transferred mitigation outcomes to achieve NDCs under the Agreement shall be voluntary and authorized by participating Parties. A process can be sought or established through which Parties seek specific permission to use reductions that have taken place in other countries (e.g., Brazil, China etc) toward their own NDCs, and where consent is granted, host Parties undertake corresponding adjustments pursuant to Article 6.2.

Australia's proposed use of a volume of 2008-2012, or even 2013-2020 CERs, would lead to the double counting of these reductions by Australia and the countries hosting these projects, unless an understanding is reached with each Host Country, whereby that host agrees not to also count those reductions towards its own NDC. For example, Australia holds CERs from India; India's NDC includes a target of to reduce the emissions intensity of its GDP by 33-35% from 2005 levels by 2030. Australia holds CERs from Vietnam; these reductions are likely to have been built into Vietnam's BAU projection.

Outside the negotiating process NGOs and academic institutions have the opportunity to independently examine the substantive and legal basis for assertions of "overachievement", in a context in which all Parties' efforts are regarded as insufficiently ambitious, and in which emissions are on an increasing trajectory. Independent assessments of the full succession of accounting decisions and choices underlying claims of "overachievement", including the specific projects underlying CP1 CERs presented for carryover are welcome inside the negotiating process, as this increases transparency and accountability, both legal and political.

Coverage of this issue in the press is also important as it creates further transparency, debate and political accountability highlighting the implications of carryover for what Paris Agreement NDCs can deliver against the commitments of all Parties to substantively reduced emissions.

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