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Report on the technical expert review of the first biennial transparency report of Australia*

Summary

This report presents the results of the technical expert review of the first biennial transparency report of Australia, conducted by a technical expert review team in accordance with the modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement. The review took place from 8 to 12 September 2025 in Canberra.

* In the symbol for this document, 2024 refers to the year in which the biennial transparency report was submitted, not to the year of publication.



Abbreviations and acronyms

2006 IPCC Guidelines	<i>2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>
A6.4ER	emission reduction under Article 6, paragraph 4, of the Paris Agreement
ACCU	Australian Carbon Credit Unit
BTR	biennial transparency report
CER	certified emission reduction
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
COVID-19	coronavirus disease 2019
CRT	common reporting table
CTF	common tabular format
GDP	gross domestic product
GHG	greenhouse gas
HFC	hydrofluorocarbon
IE	included elsewhere
IPCC	Intergovernmental Panel on Climate Change
IPPU	industrial processes and product use
ITMO	internationally transferred mitigation outcome
LULUCF	land use, land-use change and forestry
MPGs	modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement
N ₂ O	nitrous oxide
NA	not applicable
NDC	nationally determined contribution
NE	not estimated
NF ₃	nitrogen trifluoride
NID	national inventory document
NIR	national inventory report
PaMs	policies and measures
PFC	perfluorocarbon
QA/QC	quality assurance/quality control
SF ₆	sulfur hexafluoride
TERT	technical expert review team
WAM	‘with additional measures’
WM	‘with measures’

I. Introduction and summary

A. Introduction

1. This report covers the technical expert review of the BTR1 of Australia. The review was organized by the secretariat and conducted by the TERT in accordance with the MPGs,¹ particularly chapter VII thereof.
2. A draft version of this report was transmitted to the Government of Australia, which provided comments that were taken into account, as appropriate, in this final version of the report.²
3. The review was conducted as an in-country review from 8 to 12 September 2025 in Canberra by the following team of nominated experts from the UNFCCC roster of experts: Amnat Chidthaisong (Thailand), Laura Elena Dawidowski (Argentina), Fatma Betül Demirok (Türkiye), Clemencio Nhantumbo (Mozambique), Marco Orsini (Belgium), Helen Joan Plume (New Zealand), Mohan Poudel (Nepal) and Hongwei Yang (China). Marco Orsini and Hongwei Yang were the lead reviewers. The review was coordinated by Jamie Howland (secretariat).

B. Scope

4. The TERT conducted a technical expert review of the information reported in the BTR1 of Australia as per the scope of the review defined in paragraph 146 of the MPGs, consisting of:
 - (a) Review of the consistency of the information submitted by the Party under Article 13, paragraphs 7 and 9, of the Paris Agreement with the MPGs (see chap. II.A below);
 - (b) Consideration of the Party's implementation and achievement of its NDC under Article 4 of the Paris Agreement (see chap. II.B below);
 - (c) Consideration of the support provided by the Party, as relevant (see chap. II.C below);
 - (d) Identification of areas of improvement³ for the Party related to implementation of Article 13 of the Paris Agreement (see chap. II.D below).

C. Summary

5. Australia submitted its BTR1 on 19 December 2024, before the deadline of 31 December 2024 mandated in decision 18/CMA.1. Australia submitted its NID as a stand-alone document on 12 April 2024, before the deadline. Australia also submitted its CRTs on 12 April 2024, before the deadline, and CTF tables on 19 December 2024, before the deadline.
6. A list of the areas of improvement identified on the basis of the review of the consistency of the reported information with the MPGs can be found in the assessment tables.⁴

¹ Decision 18/CMA.1, annex.

² As per para. 162(e) of the MPGs.

³ As referred to in paras. 7, 8, 146(d) and 162(d) of the MPGs.

⁴ Contained in document FCCC/ETF/TERR.1/2024/AUS/Add.1, available at <https://unfccc.int/first-biennial-transparency-reports>.

D. Information provided by the Party pursuant to paragraphs 143–145 of the modalities, procedures and guidelines

7. Australia does not consider itself subject to the reporting obligations applicable to developing country Parties pursuant to Article 13, paragraph 10, of the Paris Agreement. Accordingly, Australia did not report information on support needed and received for implementing Article 13 of the Paris Agreement and transparency-related activities, including for transparency-related capacity-building.

II. Technical expert review⁵

A. Review of the consistency of the submitted information with the modalities, procedures and guidelines⁶

1. National inventory report⁷

8. The TERT assessed the information reported in the BTR1 of Australia and identified areas of improvement relating to consistency with the MPGs, which are described in tables 2–7 of the assessment tables referred to in paragraph 6 above and summarized in table 1.

⁵ As per para. 187 of the MPGs.

⁶ As per para. 146(a) of the MPGs.

⁷ As per para. 150(a) of the MPGs.

Table 1

Information reported in Australia's national inventory report and review of consistency with the modalities, procedures and guidelines

<i>Element</i>	<i>Elements of information to be reported</i>	<i>Response and its summary, as relevant</i>	<i>ID#(s) for the area(s) of improvement identified^a</i>
Submission type (para. 12 of the MPGs)	Has the NIR been submitted as a stand-alone document?	Yes	No areas of improvement were identified
Time series (paras. 57–58 of the MPGs)	What years have been reported and is the time series in accordance with the MPGs?	1990–2022, in accordance with the MPGs	No areas of improvement were identified
Metrics (para. 37 of the MPGs)	Has the Party used the 100-year global warming potential values from the IPCC Fifth Assessment Report?	Yes	No areas of improvement were identified
	Has the Party used other metrics?	No	No areas of improvement were identified
Gases (paras. 47–49 and 51 of the MPGs)	Which gases have been reported?	CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ and NF ₃	4.I.7
Indirect emissions (para. 52 of the MPGs)	Has the Party reported indirect CO ₂ emissions and national totals with and without indirect CO ₂ ?	No	No areas of improvement were identified
	Has the Party reported indirect N ₂ O emissions from sources other than those in the agriculture and LULUCF sectors as a memo item?	No	No areas of improvement were identified
National circumstances and institutional arrangements (paras. 18–19 of the MPGs)	Has the Party reported information on the functions related to inventory planning, preparation and management?	Yes	2.G.1
Methodologies, parameters and data (paras. 20–24 of the MPGs)	Has the Party used the 2006 IPCC Guidelines?	Yes	4.I.1, 4.I.4, 5.A.3, 5.A.5
	Has the Party used other IPCC methodological guidance?	Yes, the <i>2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands</i> and the <i>2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories</i>	No areas of improvement were identified
Key category analysis (paras. 25, 41 and 42 of the MPGs)	Has the Party reported a key category analysis?	Yes, a key category analysis was performed using approach 1 and a 95 per cent threshold for level and trend assessment for the starting year (1990) and the latest reporting year (2022) and with and without LULUCF	No areas of improvement were identified

<i>Element</i>	<i>Elements of information to be reported</i>	<i>Response and its summary, as relevant</i>	<i>ID#(s) for the area(s) of improvement identified^a</i>
Time-series consistency and recalculations (paras. 26–28 and 43 of the MPGs)	Has the Party reported a consistent time series?	Partly	4.I.5
	Has the Party provided justification and explanatory information for recalculations?	Yes	No areas of improvement were identified
Uncertainty assessment (paras. 29 and 44 of the MPGs)	Has the Party reported the results of the uncertainty analysis and the methods used, underlying assumptions and trends?	Yes, including level and trend uncertainty, reported using approach 1 for 1990 and the latest reporting year (2022)	4.I.2, 5.A.2, 6.L.2, 7.W.1
QA/QC plan and procedures (paras. 34–36 and 46 of the MPGs)	Has the Party elaborated information on an inventory QA/QC plan, including information on the inventory agency responsible for implementing QA/QC, and current and future QA/QC procedures?	Yes, including information on the inventory agency responsible for implementing QA/QC, an inventory QA/QC plan, general QC procedures and category-specific QC for key categories and for individual categories for which significant methodological changes and/or data revisions have occurred	4.I.3, 6.L.1
Assessment of completeness (paras. 30–33, 45, 47 and 50 of the MPGs)	Have any areas of improvement for lack of completeness been identified for the following sectors?		
	Energy	No	No areas of improvement were identified
	IPPU	No	No areas of improvement were identified
	Agriculture	Yes	2.G.2
	LULUCF	Yes	2.G.2
Threshold for reporting significant categories (para. 32 of the MPGs)	Waste	No	No areas of improvement were identified
	For categories reported as “NE” owing to insignificance, has information been reported showing that the likely level of emissions is below the threshold of significance?	Yes	No areas of improvement were identified
Methodologies, emission factors, parameters and activity data (paras. 39, 40 and 53–56 of the MPGs)	Has information been reported on categories, gases, methodologies (including the rationale for selecting them), emission factors and activity data at a disaggregated level for the following sectors?	Partly	2.G.3

<i>Element</i>	<i>Elements of information to be reported</i>	<i>Response and its summary, as relevant</i>	<i>ID#(s) for the area(s) of improvement identified^a</i>
	Energy	Yes	3.E.1
	Has information been reported on international aviation and marine bunker fuel emissions as two separate entries and such emissions distinctly reported from national totals?	Yes	No areas of improvement were identified
	Has information been reported indicating how feedstocks and non-energy use of fuels have been accounted for in the inventory, under the energy or IPPU sector?	Yes	No areas of improvement were identified
	IPPU	Partly	4.I.6
	Agriculture	Yes	No areas of improvement were identified
	LULUCF	Yes	No areas of improvement were identified
	Did the Party provide information on the approach taken to address emissions and subsequent removals from natural disturbances on managed land in a manner consistent with IPCC guidance, and indicate whether the estimates are included in national totals?	Partly	6.L.3
	Did the Party provide supplementary information on the approach to reporting emissions and removals from harvested wood products in accordance with IPCC guidance other than the production approach, and provide supplementary information on emissions and removals from harvested wood products estimated using the production approach?	Yes	No areas of improvement were identified
	Waste	Yes	No areas of improvement were identified

^a See document FCCC/ETF/TERR.1/2024/AUS/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

2. Information necessary to track progress in implementing and achieving the nationally determined contribution⁸

9. The TERT assessed the information reported in the BTR1 of Australia and identified areas of improvement relating to consistency with the MPGs, which are described in tables 11 and 13 of the assessment tables referred to in paragraph 6 above and summarized in table 2.

Table 2

Information reported in Australia’s submission

<i>Topic</i>	<i>ID#(s) for the area(s) of improvement identified^a</i>
National circumstances and institutional arrangements (paras. 59–63 of the MPGs)	No areas of improvement were identified
Description of the NDC under Article 4 of the Paris Agreement, including updates (para. 64 of the MPGs)	No areas of improvement were identified
Information necessary to track progress in implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 65–79 of the MPGs)	No areas of improvement were identified
Mitigation PaMs, actions and plans related to implementing and achieving the NDC under Article 4 of the Paris Agreement (paras. 80–90 of the MPGs)	11.1, 11.2
Summary of GHG emissions and removals (para. 91 of the MPGs)	No areas of improvement were identified
Projections of GHG emissions and removals (paras. 92–102 of the MPGs)	No areas of improvement were identified

^a See document FCCC/ETF/TERR.1/2024/AUS/Add.1. The areas of improvement referred to in this table comprise only those relating to recommendations in that document.

3. Financial, technology development and transfer, and capacity-building support provided⁹

10. According to paragraph 118 of the MPGs, developed country Parties shall provide information pursuant to Article 13, paragraph 9, of the Paris Agreement in accordance with chapter V of the MPGs. Other Parties that provide support should also provide such information and, in doing so, are encouraged to use the same MPGs contained in that chapter.

11. Pursuant to Article 13, paragraph 9, of the Paris Agreement, developed country Parties shall and other Parties that provide support should provide information on financial, technology development and transfer, and capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement.

12. Australia considers itself subject to the reporting obligations applicable to developed country Parties pursuant to Article 13, paragraph 9, of the Paris Agreement and, in accordance with the MPGs, reported information on financial, technology development and transfer, and capacity-building support provided to developing country Parties under Articles 9–11 of the Paris Agreement in its BTR1.¹⁰

13. The TERT assessed the information reported in the BTR1 of Australia and identified areas of improvement relating to consistency with the MPGs, which are described in tables 16–18 of the assessment tables referred to in paragraph 6 above and summarized in table 3.

⁸ As per para. 150(b) of the MPGs.

⁹ As per para. 150(c) of the MPGs.

¹⁰ As per para. 118 of the MPGs.

Table 3

Review of the consistency of the information on financial, technology development and transfer, and capacity-building support reported in Australia's submission with the modalities, procedures and guidelines

<i>Topic</i>	<i>ID#(s) for the area(s) of improvement identified^a</i>
National circumstances and institutional arrangements (paras. 119–120 of the MPGs)	No areas of improvement were identified
Underlying assumptions, definitions and methodologies (paras. 121–122 of the MPGs)	16.1
Information on financial support provided under Article 9 of the Paris Agreement (paras. 123–124 of the MPGs)	17.1, 18.1
Information on support for technology development and transfer provided under Article 10 of the Paris Agreement (paras. 126–127 of the MPGs)	No areas of improvement were identified
Information on capacity-building support provided under Article 11 of the Paris Agreement (paras. 128–129 of the MPGs)	No areas of improvement were identified

^a See document FCCC/ETF/TERR.1/2024/AUS/Add.1.

B. Consideration of the Party's implementation and achievement of its nationally determined contribution¹¹

14. In considering Australia's progress in implementing and achieving its NDC, the TERT noted that the NDC¹² is a commitment to reduce net national GHG emissions by 43 per cent below the 2005 level by 2030, implemented as a single-year point target with a multi-year emission budget covering 2021–2030. Australia has also committed to achieving net zero emissions by 2050. Australia's NDC covers CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃ and all sectors, categories and carbon pools defined in the 2006 IPCC Guidelines, as well as additional emissions sources reported in the annual NIR.

15. The indicators that Australia selected to track progress in implementing and achieving its NDC are described in table 4. It should be noted that Australia's emission estimates (as well as its progress indicators and targets) are reported on the basis of the Australian financial year (July to June) rather than the calendar year (January to December) because key data for Australia's national GHG inventory are published on that basis.

Table 4

Description of the indicator(s) selected by Australia to track progress in implementing and achieving its nationally determined contribution

<i>NDC target</i>	<i>Indicator</i>	<i>Description</i>
Reduction of net GHG emissions by 43 per cent below the 2005 level by 2030, implemented as a single-year point target	Net national GHG emissions in Mt CO ₂ eq	Net national GHG emissions as reported in the latest annual NIR
Reduction of net GHG emissions by 43 per cent below the 2005 level by 2030, implemented on the basis of an emission budget covering 2021–2030	Cumulative net national GHG emissions in Mt CO ₂ eq	Annual net national emissions as reported in the latest annual NIR aggregated for 2021–2030
Net zero emissions by 2050	Net national GHG emissions in Mt CO ₂ eq	Net national GHG emissions as reported in the latest annual NIR

¹¹ As per para. 146(b) of the MPGs.

¹² The consideration of the Party's implementation and achievement of its NDC is in the context of the NDC submitted by Australia on 16 June 2022.

Sources: Australia’s BTR1 and CTF tables 1–3.

16. The TERT noted that the contribution of LULUCF to achieving the NDC is included in the Party’s base-year level and target-year level and that Australia did not use ITMOs, A6.4ERs or CERs from cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement or the mechanism established by Article 6, paragraph 4, of the Paris Agreement towards the achievement of its NDC.

17. Tables 5–6 summarize information on progress in implementing the NDC based on the indicator net national GHG emissions taking into account the type of Australia’s NDC target, including quantitative values for the base year, implementation period, including the most recent year available, target year and information on the contribution of LULUCF.

Table 5
Summary of information on Australia’s progress in implementing and achieving its nationally determined contribution

(Mt CO₂ eq)

	<i>Net national GHG emissions</i>	<i>Contribution of LULUCF, as applicable</i>	<i>ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable</i>	<i>Indicator adjusted for contribution of LULUCF and ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable</i>
NDC base year (2005)	609.45			
2021	438.75	IE ^b	NA	438.75
2022	432.62	IE ^b	NA	432.62
Target level (2030) ^a				347.38
Target level (2050) ^a				0.00

Sources: Australia’s BTR1 and CTF table 4.

^a Target level corresponds to an unconditional NDC target.

^b Included in the total net national GHG emissions.

18. According to the most recent information on net national GHG emissions provided in CTF table 4, in 2022 Australia’s net GHG emissions were 432.62 Mt CO₂ eq. The indicator is 29.0 per cent (176.83 Mt CO₂ eq) below the emission level corresponding to the base-year level and 24.5 per cent (85.24 Mt CO₂ eq) above the emission level corresponding to the target level in 2030.

Table 6
Summary of information on Australia’s progress in implementing and achieving its nationally determined contribution

(Mt CO₂ eq)

	<i>Net national GHG emissions</i>	<i>Contribution of LULUCF, as applicable</i>	<i>ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable</i>	<i>Indicator adjusted for contribution of LULUCF and ITMOs, A6.4ERs and/or CERs used towards NDC, as applicable</i>
2021	438.75	IE ^a	NA	438.75
2022	432.62	IE ^a	NA	432.62
Cumulative 2021–2022	871.37	IE ^a	NA	871.37
Emission budget	4 377.00	IE ^a	NA	4 377.00

Sources: Australia’s BTR1 and CTF table 4.

^a Included in the total net national GHG emissions.

19. According to the most recent information on net national GHG emissions provided in CTF table 4, Australia’s cumulative net GHG emissions in 2021–2022 were 871.37 Mt CO₂ eq. The indicator corresponds to about 19.9 per cent of the emission budget set by Australia for 2021–2030, at 4,377.00 Mt CO₂ eq.

20. Australia reported information on the actions and PaMs that support the implementation and achievement of its NDC. Table 7 provides a summary of the reported information on the key PaMs of Australia.

Table 7
Summary of information on key policies and measures reported by Australia

<i>Sector</i>	<i>Key PaMs^a</i>	<i>Estimate of achieved GHG emission reductions in 2023 (kt CO₂eq)</i>	<i>Estimate of expected GHG emission reductions in 2030 (kt CO₂eq)</i>
Policy framework and cross-sectoral measures	Climate Change Act 2022 and consequential amendments	NE	NE
	Safeguard Mechanism ^b	NE	46 800
	Powering the Regions Fund	NE	NE
	ACCU Scheme ^b	17 300	24 839
Energy			
Energy efficiency	National Energy Performance Strategy ^b	NE	1 754
Energy supply and renewables	Capacity Investment Scheme ^b	NE	NE
	Promoting investments in clean energy technologies through the Clean Energy Finance Corporation ^b	9 900	6 900
	Promoting renewable energy through the Australian Renewable Energy Agency ^b	NE	NE
	Large-scale Renewable Energy Target ^b	29 300	NE
	Small-scale Renewable Energy Scheme ^b	19 000	NE
Transport	Rewiring the Nation ^b	NE	NE
	New Vehicle Efficiency Standard ^b	NE	4 300
	National Electric Vehicle Strategy ^b	NE	NE
IPPU	HFC management – regulations ^b	NE	8 000
Agriculture	Carbon Farming Outreach Program ^b	NE	NE
	Climate-Smart Agriculture Program ^b	NE	NE
LULUCF	Blue Carbon Conservation, Restoration and Accounting Program ^b	NE	NE
Waste	National Waste Policy Action Plan ^b	NE	NE

Sources: Australia's BTR1 and CTF table 5, and information provided by the Party during the review.

^a Names of PaMs reproduced as reported in Australia's BTR1.

^b Included in the WM scenario projections.

21. The TERT noted that Australia is advancing a comprehensive emission reduction agenda. Major cross-cutting policy programmes include the Safeguard Mechanism and the ACCU Scheme. The aim of the Safeguard Mechanism (reformed in 2023) is to limit emissions from the country's largest industrial facilities (i.e. those emitting more than 100 kt CO₂ eq/year). Each facility is assigned an emission baseline, which declines predictably over time to align with national GHG emission targets. If a facility exceeds its baseline, it must offset the excess by purchasing credits, for example ACCUs or Safeguard Mechanism credits. ACCUs can be earned by participating in the ACCU Scheme, a voluntary initiative that supports individuals and businesses in running projects to reduce GHG emissions or store carbon through energy efficiency improvements, fuel switching, CH₄ capture from landfills and carbon storage in forests and soils. Looking ahead, the Government of Australia is developing a Net Zero Plan to guide the transition to net zero emissions by 2050. The Future Made in Australia plan will play a role in achieving net zero emissions by fostering growth in emerging clean industries (renewable hydrogen, green metals, etc.).

22. The TERT noted that PaMs, actions and plans have contributed to GHG emission reductions in the energy, waste and LULUCF sectors and have established the framework for limiting growth in emissions in the IPPU sector.

23. In the energy sector, emissions surged in 1990–2009 owing to population and GDP growth and increased exports of natural resources. They remained relatively stable in 2009–2018 and significantly decreased in 2018–2022, driven largely by a continued decrease in the emission intensity of electricity generation, as well as impacts of the COVID-19 pandemic, indicating that the growth in emission drivers has been counteracted effectively by the effects of mitigation PaMs. The TERT noted that emissions from stationary combustion exhibit the largest decrease. Australia has effectively promoted changes in the electricity generation mix, with a declining share of coal and increasing share of renewables, through a number of PaMs that support Australia’s commitment to achieving its renewable electricity target of 82 per cent of electricity generation by 2030.

24. In the waste sector, emissions decreased in 1990–2022 (by 40.9 per cent) as increases in waste generation associated with growth in population and industrial production were offset by PaMs aimed at increasing CH₄ recovery. Faced with further growth in population and economic activity, Australia is implementing initiatives for reducing per capita generation of waste and diverting waste from landfill. The ACCU Scheme has played an important role in reducing waste emissions, with activities related to waste management practices (capturing biomethane, organic waste separation) earning the second largest amount of ACCUs to date. Further emission reductions are expected to be delivered by the Circular Economy Framework, which is aimed at doubling the circularity of the economy by 2035, with targets to reduce the Party’s per capita material footprint by 10 per cent, increase material productivity by 30 per cent and recover 80 per cent of resources.

25. The LULUCF sector turned from a net source in 1990 to a net sink of 88.4 Mt CO₂ eq in 2022. Emissions decreased owing mainly to the decline in emissions from land clearing (forest land converted to other land uses), the expansion of forest cover (including plantation establishment) and declines in the harvesting of native forests. The ACCU Scheme has made a strong contribution to this trend, with the greatest number of ACCUs having been earned for activities related to carbon stock management.

26. The emission increase in the IPPU sector in 1990–2022 was driven mainly by the increase in use of HFCs to replace ozone-depleting chemicals phased out in accordance with the Montreal Protocol on Substances that Deplete the Ozone Layer. Australia’s HFC phase-down policy, which is based on an annual import quota that reduces every two years, is expected to lead to substantial emission reductions in the near future.

27. The TERT noted that emissions from the transport and agriculture sectors pose a challenge to achieving the 2050 NDC target. For transport, growth in the number of passenger vehicles, along with an increase in diesel consumption in heavy vehicles and an increase in air travel, led to rising emissions in 1990–2019. Emissions from transport have slightly decreased since 2019 but, according to Australia’s projections, they will still be at a considerable level up until 2040, decreasing only 11.1 per cent from the 2022 level. Australia’s New Vehicle Efficiency Standard and National Electric Vehicle Strategy are the main tools for increasing the uptake of low- and zero-emission vehicles. In agriculture, emissions have stayed largely stable since 2010, with a slight increase in 2021–2022. Australia’s efforts to reduce emissions in the sector are focused on carbon farming, with carbon credits that can be used under the ACCU Scheme, and financing research on sustainable farming.

28. Australia reported projections for 2025–2040 under the WM scenario.¹³ The WM scenario reported by the Party includes PaMs implemented and adopted until 2028. In addition to the WM scenario, Australia reported the WAM scenario. The projected emission levels are presented in table 8. The TERT noted that information on GHG emission projections was not used in considering Australia’s progress in implementing its NDC.

¹³ Note that, as per para. 93 of the MPGs, projections shall not be used to assess progress towards the implementation and achievement of an NDC under Article 4 of the Paris Agreement unless the Party has identified a reported projection as its baseline.

Table 8
Summary of greenhouse gas emission projections for Australia

	<i>GHG emissions (kt CO₂ eq/year)</i>	<i>Change in relation to 2020 level (%)</i>	<i>Change in relation to 2022 level (%)</i>
Inventory data 2020	474 544.29		
Inventory data 2022	432 620.83	-8.8	
WM projections for 2030	352 266.01	-25.8	-18.6
WAM projections for 2030	351 414.16	-25.9	-18.8
WM projections for 2040	271 279.99	-42.8	-37.3
WAM projections for 2040	271 106.77	-42.9	-37.3

Sources: Australia's BTR1 and CTF tables 6–8.

Note: The projections are for GHG emissions with LULUCF and excluding indirect CO₂ emissions.

29. The TERT assessed Australia's progress towards its NDC targets. With regard to the single-year point target for 2030, the TERT considers that, on the basis of a comparison of information on net national GHG emissions in the most recent reported years (i.e. 2021–2022) with the emission levels on the trajectory to the 2030 target, and taking into account information on mitigation actions, there are not yet enough data to sufficiently assess the Party's progress in implementing the NDC as it is early in the implementation period (2021–2030). With regard to the cumulative emission target, the TERT notes that 19.9 per cent of the emission budget was spent in 2021–2022 (see table 6), leaving 80.1 per cent of the total budget for the remaining eight years of the implementation period (2023–2030). On the basis of this information and taking into account information on mitigation actions, the TERT considers that Australia made progress towards achieving its NDC target by implementing mitigation actions in 2021–2022. With regard to the net zero target for 2050, the TERT notes that there are not yet enough data to sufficiently assess the Party's progress in this regard as it is early in the implementation period (2021–2050).

C. Consideration of the Party's support provided¹⁴

30. In its BTR1 Australia reported information on national circumstances and institutional arrangements relevant to reporting on the provision and mobilization of support. The Party reported information on the systems and processes used to identify, track and report on support provided, as well as on the challenges and limitations encountered. The Party presented case studies illustrating its experience and good practices in developing public policy and regulatory frameworks to encourage private climate finance and investment. In addition, Australia reported on its transparency reporting system and outlined efforts to enhance the comparability and accuracy of the information it reports on financial support provided.

31. Australia described its national circumstances and institutional arrangements relevant to the provision of technology development and transfer, and capacity-building support. Several institutional arrangements have been established to facilitate the sharing of Australian science and technology with countries in the Indo-Pacific region and globally. For example, the Australian Centre for International Agricultural Research is advancing the science and practice of transforming food systems and livelihoods that are under the greatest pressure to adapt, or where opportunities exist to achieve both adaptation and mitigation benefits in agriculture. Similarly, Australia's national science agency, the Commonwealth Scientific and Industrial Research Organisation, collaborates internationally on developing solutions to climate change and supports partner countries in applying innovative technologies.

32. Australia's overarching strategy for supporting developing country Parties has focused on delivering high-quality climate finance that responds to the needs of its development partners, is mutually agreed with them and aligns with national and regional plans. Australia's climate finance is designed to reflect country-driven strategies and the

¹⁴ As per para. 146(c) of the MPGs.

unique operating environments in which it is deployed. The Party has prioritized grant-based funding for adaptation projects in the Pacific, while increasingly employing blended finance approaches to leverage additional resources for mitigation and energy transition efforts in South-East Asia. The strategy has targeted both climate change adaptation and mitigation, while ensuring an overall positive contribution to communities and countries in terms of development, well-being and sustainable development outcomes.

33. Australia’s BTR1 contains key information on underlying assumptions, methodologies and definitions used by the Party to identify and report information on financial, technology development and transfer, and capacity-building support provided.

1. Financial support provided under Article 9 of the Paris Agreement

(a) Bilateral, regional and other channels

34. Australia provided USD 499.78 million of financial support through bilateral, regional and other channels in the biennium 2021–2022. It should be noted that Australia’s financial support data are reported on the basis of the Australian financial year (July to June) rather than the calendar year (January to December). The majority of financial support provided in 2021–2022 through bilateral, regional and other channels was allocated to the following sectors: other (44.0 per cent), cross-cutting (24.7 per cent), transport (9.0 per cent), energy (8.9 per cent), agriculture (8.2 per cent), water and sanitation (4.9 per cent) and industry (0.3 per cent).

35. Table 9 summarizes information on financial support provided by the Party through bilateral, regional and other channels by type of support.

Table 9

Summary of financial support provided through bilateral, regional and other channels in 2021–2022 by Australia

<i>Type of financial instrument</i>	<i>Amount (climate-specific) (face value or grant equivalent – USD million)</i>				<i>Share of total for bilateral, regional and other channels (%)</i>
	<i>Adaptation</i>	<i>Mitigation</i>	<i>Cross-cutting</i>	<i>Total</i>	
Grant	316.40	68.96	62.81	448.17	89.7
Concessional loan	11.47	8.85	0.00	20.32	4.1
Non-concessional loan	0.00	31.29	0.00	31.29	6.3
Total	327.87	109.11	62.81	499.78	100.0
Share of total for bilateral, regional and other channels (%)	65.6	21.8	12.6	100.0	–

Sources: Australia’s BTR1 and CTF table III.1.

36. Australia provided climate-related loans directly to developing partner countries, targeting both government and private sector entities. For loans extended to sovereign entities, the climate-related component is converted into an official development assistance grant-equivalent value, which is counted towards Australia’s climate finance. For loans provided to the private sector or other non-sovereign entities, the full value of the loan is counted towards climate finance, reflecting its economic additionality.

(b) Multilateral channels

37. Australia provided USD 174.29 million of financial support through multilateral channels in the biennium 2021–2022, nearly 100 per cent of which was allocated to the cross-cutting sector.

38. Table 10 summarizes information on financial support provided by the Party through multilateral channels by type of support.

Table 10
Summary of financial support provided through multilateral channels in 2021–2022 by Australia
 (USD million)

<i>Institution/fund</i>	<i>Climate-specific inflows (grant equivalent)</i>			<i>Total</i>
	<i>Adaptation</i>	<i>Mitigation</i>	<i>Cross-cutting</i>	
Asian Development Bank	0.00	0.00	25.10	25.10
Global Environment Facility	0.00	0.00	20.06	20.06
International Bank for Reconstruction and Development	0.00	0.00	22.97	22.97
International Finance Corporation	0.00	0.00	21.19	21.19
Multilateral Fund for the Implementation of the Montreal Protocol	0.00	0.00	11.54	11.54
United Nations Development Programme	0.00	0.00	5.62	5.62
United Nations Environment Programme	0.13	0.00	0.00	0.13
World Bank	0.00	0.00	63.27	63.27
Other ^a	0.04	0.00	4.38	4.42
Total	0.17	0.00	174.12	174.29
Share of total (%)	0.1	0.0	99.9	100.0

Sources: Australia's BTR1 and CTF table III.2.

^a Including CGIAR (multilateral projects window 2), the Food and Agriculture Organization of the United Nations, the IPCC, the UNFCCC and the United Nations Convention to Combat Desertification.

39. The amount of climate finance attributable to Australia's multilateral core contributions is calculated using the imputed multilateral shares for climate development finance, published annually by the Organisation for Economic Co-operation and Development. In addition, Australia provides funding to other United Nations bodies, such as the United Nations Development Programme, which are not included in the Organisation for Economic Co-operation and Development imputed shares but play an important role in delivering climate finance. Australia estimates that 30 per cent of this funding qualifies as climate finance, based on climate-specific shared partnership objectives aimed at minimizing the impacts of climate change on sustainable development and reducing the risk of climate change induced humanitarian crises and biodiversity loss.

2. Technology development and transfer support provided under Article 10 of the Paris Agreement

40. Australia implemented measures or activities related to technology development and transfer, including activities undertaken by both the public and the private sector, that benefited developing country Parties. The Party has established several programmes and institutional arrangements that focus specifically on developing technologies for addressing climate change, as well as programmes designed for tailoring Australian technological advances to the contexts and needs of developing countries.

41. Furthermore, Australia provided support across the full technology cycle, from research, development and piloting to large-scale deployment and the establishment of enabling conditions, with a strong focus on renewable energy and resilience-building, mostly in the Pacific region. In its BTR1 Australia presented five case studies highlighting its efforts in relation to technology development and transfer. One example is the Science and Technology for Climate programme, implemented by the Commonwealth Scientific and Industrial Research Organisation and the Australian National University, which brought together leading Australian scientists with development partners in the Indo-Pacific region to trial and scale up innovative technologies aimed at addressing the impacts of climate change. The programme was designed to tolerate relatively high levels of risk in order to give room in Australia's development work for trying out new technologies in developing countries.

42. Australia also provided support for the deployment and enhancement of the endogenous capacities and technologies of developing country Parties. One example is the Climate and Oceans Support Program in the Pacific, which strengthens the capacity of Pacific Island countries to manage and mitigate the impacts of climate vulnerability and tidal events.

Traditional knowledge, much of which was at risk of being lost, is combined with conventional forecasting methods to generate knowledge products that help to improve weather forecasting, decision-making, risk management and disaster prevention. Working with the national meteorological services of Niue, Samoa, Solomon Islands and Vanuatu, the Climate and Oceans Support Program in the Pacific has documented traditional weather forecasting knowledge and combined it with scientific data to produce integrated forecasts that combine traditional insights and modern technologies.

43. Australia encouraged private sector initiatives that support developing country Parties with technology development and transfer. The Business Partnerships Platform, a partnership between the Government of Australia and the private sector in developing countries, has been delivering both development impact and sustainable commercial returns. The businesses supported under the Platform have been creating new products and services that help to improve lives by de-risking and scaling up green investments. In Nepal, for example, where building materials are highly pollutant and account for an estimated 37 per cent of the country's CO₂ emissions, the Platform supported the local enterprise Build Up Nepal Engineering to expand the production of affordable, safe and eco-friendly bricks. The initiative also empowered rural entrepreneurs, particularly low-income families, women, migrants and youth, by providing brick-making machines.

44. Australia engaged in measures and activities related to technology innovation, including research, development and deployment, using a collaborative approach. In this reporting period, for example, the Australian Centre for International Agricultural Research, in cooperation with national research partners, supported community-based fisheries management and aquaculture management in the Pacific, and trialled and implemented fisheries technology in South-East Asia to protect fishing livelihoods and boost river health and food security. An activity in the Mekong Delta reportedly increased the production and profitability of saline-affected crop production systems.

45. Australia supported activities related to technology development and transfer that focused mainly on small island developing States and neighbouring countries in the Pacific, given their acute climate vulnerabilities. Activities were reported to be supported in the key sectors of water and sanitation, agriculture, environmental protection, disaster risk reduction and energy. The types of technology that received support include climate-resilient agriculture, water filtration, water resource management, digital technology, GHG accounting, solar energy, disaster risk reduction and marine technology. Most activities were focused on Oceania, with five activities in the region, followed by Tonga and South-East Asia, with two activities each. For the biennium 2021–2022, these activities aimed at supporting technology development and transfer were reported as ongoing.

3. Capacity-building support provided under Article 11 of the Paris Agreement

46. Australia provided capacity-building support to developing country Parties for mitigation, adaptation and cross-cutting needs. The Party employed a range of strategies to deliver this support, ensuring alignment with the Sustainable Development Goals and maintaining a strong focus on the Pacific region. Its approach was needs-based, partnership-driven, multilateral and integrated into broader development efforts, with particular emphasis on transparency and resilience-building. Australia's capacity-building support responded to the existing and emerging capacity-building needs, priorities and gaps of developing country Parties. This was guided by key principles, including national ownership, stakeholder participation, localization, donor cooperation and programmatic coordination, as well as a commitment to stability, impact assessment and monitoring.

47. Australia described its key policies that promote capacity-building support in developing country Parties. Capacity-building has been an integral principle of Australia's sustainable development programming for many decades. During the reporting period, Australia's development programme was guided by Partnership for Recovery: Australia's COVID-19 Development Response. This policy placed a strong focus on the localization of Australia's assistance through partner government systems and local organizations, ensuring efforts were informed by local knowledge, supported local priorities and needs, and contributed to local capacity-building and accountability. One of three pillars of this policy was stability, including the commitment to support countries in maintaining health and

educated populations that are food and water secure, and resilient to threats such as climate change.

48. In addition to embedding capacity-building within broader development activities as a core element of sustainability, Australia implemented a range of dedicated capacity-building programmes. These include scholarships, short courses, and technical assistance aimed at strengthening the organizational and institutional capacity of recipient countries for addressing issues related to climate change. Australia reported case studies of capacity-building activities tailored to the needs of recipient countries in the Indo-Pacific region. For example, in Cambodia and Thailand, Australia supported climate-resilient water resource management practices in line with government priorities through the Australian Water Partnership. Since 2019, the Australian Water Partnership has implemented 70 activities across the Mekong subregion, with a total value of USD 11.23 million.

49. Similarly, in the Lao People's Democratic Republic, Australian technical experts collaborated with the Department of Water Resources to prepare a sustainable groundwater management plan for the Sekong province, potentially benefitting 132,000 people. Further, in the Indo-Pacific region, an Australian-supported programme called Climate Resilient by Nature, implemented by WWF, has supported a portfolio of community-led, nature-based solutions to climate change. A central knowledge hub under the programme enabled collaboration among partners and facilitated the sharing of lessons learned and best practices.

50. Australia supported capacity-building measures and activities that focused mainly on helping partner countries to strengthen the systems and institutions that influence development outcomes and improve their ability to cope with the effects of climate change and on improving national data management systems. For the biennium 2021–2022, the majority of capacity-building measures and activities were reported as ongoing.

D. Identification of areas of improvement¹⁵

51. During the technical expert review, the TERT identified areas of improvement in relation to Australia's implementation of Article 13 of the Paris Agreement, which are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 6 above.

III. Conclusions and recommendations

52. The TERT conducted a technical expert review of the information reported in the BTR1, NID, CRTs and CTF tables of Australia in accordance with the MPGs.

53. The areas of improvement identified by the TERT on the basis of the review of the consistency of the information reported by Australia with the MPGs are summarized in chapter II.A above and included in the assessment tables referred to in paragraph 6 above.

54. The TERT assessed Australia's progress towards its NDC targets. For the 2030 single-year point target, the TERT considers that, on the basis of a comparison of information on net national GHG emissions in the most recent reported years (i.e. 2021–2022) with the emission levels on the trajectory to the 2030 target, and taking into account information on mitigation actions, there are not yet enough data to sufficiently assess the Party's progress in implementing the NDC as it is early in the implementation period (2021–2030). Regarding the cumulative emission target, 19.9 per cent of the emission budget was used in 2021–2022, with 80.1 per cent remaining for 2023–2030, indicating that the Party is making progress towards the target by implementing mitigation actions. The TERT noted that it is too early in the implementation period (2021–2050) to make a meaningful assessment of the Party's progress towards its 2050 net zero target.

55. PaMs, actions and plans, such as the ACCU Scheme, the Large-scale Renewable Energy Target and the National Waste Policy Action Plan, have contributed to GHG emission reductions in the energy (excluding transport), LULUCF and waste sectors. In the agriculture

¹⁵ As per para. 146(d) of the MPGs.

and IPPU sectors, GHG emissions slightly increased in 2021–2022, which indicates that increased agricultural production owing to favourable climate conditions and economic drivers such as GDP growth have outpaced the effect of the implementation of mitigation PaMs in the short term.

56. Australia has provided financial support through bilateral, regional and other channels and through multilateral channels to developing countries. The financial support provided through bilateral, regional and other channels in 2021–2022 totalled USD 499.78 million; while the financial support provided through multilateral channels in 2021–2022 amounted to USD 174.29 million.

57. Australia continued to provide support for technology development and transfer, and capacity-building. Priority for technological support was given to projects and programmes focused on technology development that involve tailoring Australian technological advances to the contexts and needs of recipient countries for addressing climate change. Priority for capacity-building support was given to projects and programmes in the water and sanitation, agriculture, environmental protection, disaster risk reduction and energy sectors.

Annex

Documents and information used during the review

A. Reference documents

BTR1 of Australia. Available at <https://unfccc.int/first-biennial-transparency-reports>.

BTR1 CTF tables of Australia.

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B. Additional information provided by the Party

Responses to questions during the review were received from Carrie Fleming (Department of Climate Change, Energy, the Environment and Water of Australia), including additional material. The following references were provided by Australia and may not conform to UNFCCC editorial style as some have been reproduced as received:

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Zhang, et al. 2025. *Microplastic in Australian processed organics: Abundance, characteristics and potential transport to soil ecosystem*. Journal of Environmental Management. Available at: <https://www.sciencedirect.com/science/article/pii/S0301479725003354>.
