

Submission under the Paris Agreement

New Zealand's second Nationally Determined Contribution

Tā Aotearoa Whai Wāhitanga Whakatau ā-Motu tuarua



New Zealand hereby communicates its second Nationally Determined Contribution (NDC) in accordance with Article 4 of the Paris Agreement for the period 2031 to 2035.

#### The second Nationally Determined Contribution of New Zealand is:

To reduce net greenhouse gas emissions to 51–55 per cent below gross 2005 levels by 2035.

Based on New Zealand's Greenhouse Gas Inventory (1990–2022), this target provisionally equates to reducing emissions to between 38.98 and 42.44 Mt CO<sub>2</sub>-e by 2035.

The second NDC constitutes a progression in ambition from New Zealand's first updated NDC of reducing net greenhouse gas emissions to 50 per cent below gross 2005 levels by 2030, or to an estimated 579 Mt CO<sub>2</sub>-e over 2021–30.

The second NDC is informed by the outcomes of the first Global Stocktake in 2023, and represents New Zealand's highest possible ambition, in light of our national circumstances and respective capabilities. New Zealand's relatively small population, high rates of renewable electricity generation, and economic reliance on primary industries are key factors that shape our national circumstances and are reflected in our unique emissions profile, with emissions significantly coming from the agriculture sector.

The NDC reaffirms New Zealand's commitment to the long-term temperature goal set out in Article 2, paragraph 1(a) of the Paris Agreement, and to decisions of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA), including 1/CMA.3, 1/CMA.4, and 1/CMA.5, which have since resolved to pursue efforts to limit the global temperature increase to 1.5°C. New Zealand remains committed to playing its part to achieve the long-term global temperature goal, including through this NDC.

New Zealand intends to separately report and communicate its climate finance as part of its obligations under the Paris Agreement. This includes its biennial communications under Article 9, Paragraph 5 of the Paris Agreement, and as part of its Biennial Transparency Report. New Zealand's Biennial Transparency Reports will serve as its Adaptation Communications, unless otherwise specified.

Tokelau's climate change contribution is included as part of the second NDC. New Zealand extended its ratification of the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement to include Tokelau as of 13 November 2017.

#### **Time period**

2031 to 2035

#### **Type of commitment**

A single-year target

#### **Target reference year**

2005

#### **Reduction level**

Emissions will be reduced by 51–55 per cent below gross 2005 levels by 2035.

#### **Scope and coverage**

The target is economy-wide, covering all sectors:

- Energy
- Industrial processes and product use
- Agriculture
- Land use, land-use change and forestry (LULUCF)
- Waste

The target also covers all greenhouse gases:

- CO<sub>2</sub>
- SF<sub>6</sub>
- PFCs
- NF<sub>3</sub>

- CH<sub>4</sub>
- HFCs
- N<sub>2</sub>O

### Methodological approaches for estimating anthropogenic greenhouse gas emissions and removals

The methodological approaches applied to the second NDC will adhere to those prepared by the Intergovernmental Panel on Climate Change (IPCC) and, where applicable, agreed by the CMA.

#### Use of market mechanisms and cooperative approaches

The NDC represents an effort to align New Zealand's commitment to the Paris Agreement with domestic emissions budgets set under the Climate Change Response Act 2002 (Climate Change Response Act) as much as possible. However, New Zealand recognises the value of international cooperation and intends to retain the optionality of the use of cooperative approaches.

#### **Methodologies**

New Zealand will account for the LULUCF sector using a combination of the following:

- 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines)
- 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands
- 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol (2013 KP Supplement)
- 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Any information on country-specific methodologies applied will be consistent with Article 13, paragraph 7(a) of the Paris Agreement, and paragraph 1(b) of Annex II of Decision 4/CMA.1. New Zealand's approach will also demonstrate consistency with greenhouse gas inventories pursuant to Article 13, paragraph 7(a) of the Paris Agreement.

Further information is provided in the Appendix: Information to facilitate clarity, transparency and understanding of New Zealand's 2031–35 NDC.

## Appendix: Information to facilitate clarity, transparency and understanding of New Zealand's 2031–35 NDC

New Zealand sets out below information to facilitate clarity, transparency and understanding of our second NDC (Article 4, paragraph 8 of the Paris Agreement and decision 4/CMA.1 refer).

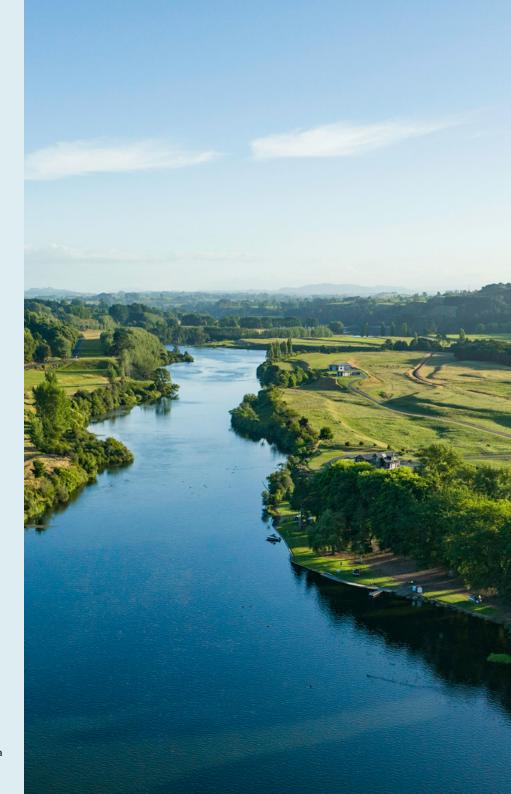


Table 1: Quantifiable information on the reference point and a base year

Sub-element		Information
1.a.	Reference year(s), base year(s), reference period(s) or other starting point(s)	Base year: 2005
1.b.	Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year	Total emissions in base year (2005): provisional estimate 86.62 Mt CO <sub>2</sub> -e.¹
1.c.	For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or polices and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information	Not applicable.
1.d.	Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction	Net emissions will be reduced by 51–55 per cent below gross 2005 levels by 2035.

<sup>1</sup> Final quantification of base year emissions will be based on national totals reported in New Zealand's Greenhouse Gas Inventory covering 1990–2035 unless otherwise specified, and, as such will reflect methodological improvements to inventory estimates.

Sub-element		Information
1.e.	Information on sources of data used in quantifying the reference point(s)	Base year emissions will be taken from New Zealand's Greenhouse Gas Inventory covering 1990–2035 (published in 2037).
		The metrics applied to express total greenhouse gas emissions and removals in carbon dioxide equivalents (CO <sub>2</sub> -e) are the 100-year time horizon global warming potential (GWP100) values from the IPCC's Fifth Assessment Report (AR5). Any changes to these metrics will be in accordance with decisions agreed by the CMA.
1.f.	Information on the circumstances under which the Party may update the values of the reference indicators	The base year emissions estimate remains provisional, until the technical expert review of New Zealand's Greenhouse Gas Inventory covering 1990–2035, published in 2037, is completed, and New Zealand will periodically update the indicator in response to ongoing methodological improvements to New Zealand's Greenhouse Gas Inventory. New Zealand will provide information on these methodological improvements in each Biennial Transparency Report as applicable.



Table 2: Time frames and/or periods for implementation

Sub-element		Information
2.a.	Time frame and/or period for implementation, including start and end date	Period covered by the second NDC: 1 January 2031 to 31 December 2035.
2.b.	Whether it is a single-year or	New Zealand's second NDC is a single-year target.
	multi-year target, as applicable	A single-year target was chosen to enhance understanding of our NDC, minimise complexity, improve coherence between domestic and international climate architecture, and to better incentivise and drive domestic action.
		Our second NDC target is expressed as a range to enable New Zealand to respond to evolving national circumstances, notably the high proportion of biogenic methane from agriculture in New Zealand's emissions profile. New Zealand is significantly investing in agricultural technology, and this represents a promising area for emissions reductions. However, at the time of this communication there is uncertainty about the impacts that emission reduction technologies, including agricultural mitigation technologies, will have over the NDC period. The parameters of the range reflect our highest possible ambition based on current expectations of commercial feasibility of such technologies, while also allowing for flexibility to achieve greater emissions reductions if these technologies become subject to widespread commercial application sooner than expected.



**Table 3: Scope and coverage** 

Sub-element	Information
<b>3.a.</b> General description of the tar	get New Zealand's second NDC target is an absolute economy-wide emissions reduction target.
3.b. Sectors, gases, categories and pools covered by the national determined contribution, incl as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guideli	ly and product use, agriculture, LULUCF, and waste, as well as all greenhouse gases: CO <sub>2</sub> , CH <sub>4</sub> , uding, N <sub>2</sub> O,SF <sub>6</sub> , HFCs, PFCs, NF <sub>3</sub> .
3.c. How the Party has taken into consideration paragraph 31(c and (d) of decision 1/CP.21	New Zealand is striving to include all categories of anthropogenic emissions or removals in our second NDC target and will provide explanations for any categories that have been excluded.
3.d. Mitigation co-benefits resulting Parties' adaptation actions and or economic diversification planting description of specion projects, measures and initiate of Parties' adaptation actions economic diversification planting planting planting adaptation actions actions planting planting planting actions actions actions planting plan	ans, fic ives and/or



#### **Table 4: Planning processes**

#### **Sub-element**

#### Domestic i

**Information** 

- **4.a.** Information on the planning processes that the Party undertook to prepare its nationally determined contribution
  - (i) Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner

#### **Domestic institutional arrangements**

New Zealand has implemented, and is planning, a number of policies and institutional arrangements to meet our domestic and international climate change goals, including our first NDC for the period 2021–30.

The Climate Change Response Act provides a framework by which New Zealand can develop and implement clear and stable climate change policies, and which supports abatement towards our NDCs. The purpose of the Climate Change Response Act is to contribute to the global effort under the Paris Agreement to limit global warming to 1.5°C, and to enable meeting our international obligations by enshrining in legislation the following:

- 1. A domestic emissions reduction target for 2050 requiring greenhouse gases, other than biogenic methane, to reach net zero, and biogenic methane to reduce by 24–47 per cent below 2017 levels by 2050.
- 2. A system of emissions budgets and emissions reduction plans to act as stepping stones toward the 2050 target and to provide a framework for planning. Emissions budgets set a limit on the amount of greenhouse gas emissions allowed across a five-year period. Emissions reduction plans set out the policies and strategies for achieving the respective emissions budget.
- 3. An adaptation policy cycle to assess and address the risks from a changing climate.
- 4. A Climate Change Commission to provide independent advice on mitigation and adaptation, and to monitor progress on these.

The implementation of our first three emissions reduction plans will help put New Zealand on a path to achieving our second NDC (New Zealand's third emissions reduction plan, covering the period 2031–35, is due by 2030). The New Zealand Emissions Trading Scheme remains a critical policy tool in reducing our emissions to ensure our obligations under the Paris Agreement are met.

#### Information

In 2029, we will publish our third emissions reduction plan for the period 2031–35 corresponding to our NDC. This plan will outline sector policies for mitigation action over that time, moving us towards achieving our NDC.

As technologies become available and national circumstances evolve, New Zealand will continue to assess, realign and introduce policies to reduce emissions. For example, New Zealand is currently investing substantially in agricultural technology and this represents a promising area for emissions reductions.

Further information about New Zealand's climate change policies and institutional arrangements is available online, notably on the websites of the Ministry for the Environment, Ministry of Foreign Affairs and Trade, and Ministry for Primary Industries. Details will also be included in New Zealand's Biennial Transparency Reports.

#### **Process to prepare NDC**

In preparing our second NDC, New Zealand took into account factors such as:

- our commitment to supporting the achievement of the Paris Agreement temperature goal, and subsequent CMA decisions that resolved to focus efforts on 1.5°C
- the feasibility of emissions reductions and removals in New Zealand over the NDC period
- the desirability of alignment with New Zealand's domestic climate change settings, including our emissions budgets, long-term emissions transition and domestic 2050 emissions reduction target
- the manageability of fiscal and economic costs.

We considered these factors within the broader context of the Paris Agreement, including the outcome from the first Global Stocktake in 2023.

#### Information

Our second NDC was informed by the following:

- The outcome of the first Global Stocktake. See Element 4c.
- Assessments of alignment with limiting the temperature increase to 1.5°C. See Element 7b.
- Our wider policy response to climate change. The NDC was set to maintain coherence with our second emissions reduction plan for 2026–30, and our third emissions budget over 2031–35. The actions we implement as part of the second emissions reduction plan will contribute to the quantum of emissions reductions we are able to achieve by 2035. The lower end of the NDC target range aligns with our third emissions budget, which supports the delivery of both our domestic emissions budget and our second NDC. The upper end of the NDC target range requires greater emissions reductions than our third emissions budget. This will help drive additional abatement over 2031–35, supporting the deliverability of both our third emissions budget and second NDC, while maximising our ambition.
- Targeted engagement and public input carried out by the New Zealand Government between
  October and December in 2024. Most stakeholders expressed their support for an NDC2 target
  level that is ambitious yet achievable largely through domestic action, while remaining open
  to using offshore mitigation. Stakeholders highlighted the importance of climate policy to be
  in alignment with the level of ambition set in NDC2 for the target to be achievable. The key
  themes from feedback received from stakeholders across economic sectors, ENGOs and the
  general public included:
- the need for alignment and consistency between domestic and international climate targets and policy
- ensuring limited NDC impact on trade and international reputation
- maintaining a balance between ambition and having an achievable and feasible target with a clear action plan
- a preference for domestic action, while remaining open to the option for international cooperation
- consideration to reduce economic impacts and costs to businesses and households.

#### Sub-element Information

Information on feedback from iwi and Māori is included in the following section. The feedback received has been considered in the design of our second NDC.

- Analysis from New Zealand's Climate Change Commission (Commission), as requested by the
  Minister of Climate Change.<sup>2</sup> The report considered what level of domestic emissions reductions
  New Zealand could achieve toward our 2031–35 NDC, including the impacts associated with
  those emissions outcomes. The Commission found that New Zealand could achieve greater net
  emissions reductions by the end of the 2031–35 NDC period than in the 2021–30 NDC period
  through domestic action alone. The Commission's report is available online.
- Assessments of costs. Modelling covered the costs of delivering the NDC, and considered the impacts on households, sectors and regions. We are cognisant that within these groupings, children, Māori and Pasifika are especially vulnerable. In deciding our 2031–35 emissions reduction plan corresponding to the NDC period, we will have an opportunity to look deeper into the impacts of policies to achieve the necessary abatement. Our Climate Change Response Act requires that our emissions reductions plans include a strategy to mitigate the impacts from low-emissions transitions.

#### **Engagement with indigenous peoples**

New Zealand is founded on a partnership between the Crown and indigenous New Zealanders, Māori, through Te Tiriti o Waitangi (the Treaty of Waitangi).

Climate change impacts Māori disproportionately. The Māori economy relies heavily on climate-sensitive industries, such as forestry, agriculture, fisheries and tourism.

In determining the second NDC, the New Zealand Government considered how the NDC may impact Māori rights and interests.

<sup>2</sup> New Zealand's Climate Change Response Act allows for the Minister of Climate Change to, at any time, request that the Climate Change Commission prepare reports to the Government on matters related to reducing emissions of greenhouse gases and adapting to the effects of climate change.

Sub-element	Information
	The New Zealand Government consulted Māori on the second NDC (October-December 2024), including with Pou Take Āhuarangi, the climate-focused branch of the National Iwi Chairs Forum (NICF), which comprises 77 iwi across Aotearoa, and Post-Settlement Governance Entities (PSGEs). PSGEs were invited to engage with the Ministry for the Environment on New Zealand's 2031–35 NDC. Additionally, Māori representative bodies with climate change interests, or those that had provided feedback on the second emissions reduction plan and/or New Zealand's first NDC for 2021–30, were invited to engage.
	The New Zealand Government will continue to engage with Māori on climate change policy development. This includes devising the third emissions reduction plan for 2031-35 covering the same period as the NDC. This is a requirement of our Climate Change Response Act, where emissions reduction plans must include a strategy to recognise and mitigate the impacts on iwi and Māori of reducing emissions.
<ul> <li>(ii) Contextual matters, including, inter alia, as appropriate:</li> <li>(a) National circumstances, such as geography, climate, economy, sustainable development and</li> </ul>	New Zealand's national circumstances present challenges to, and opportunities for, reducing emissions. The country has a small population (5.3 million in 2024), which is widely dispersed across a long, narrow and mountainous country. The country is located in the southwest Pacific Ocean and is distant from most trading partners. We have an export-dependent economy, with a significant reliance on agriculture, which contributes considerably to New Zealand's total export earnings.
poverty eradication	New Zealand's geography and population distribution have contributed to a dependence on fossil fuel-powered transport. Because of this, and because of New Zealand's primary sector exports base, gross emissions are dominated by the agriculture and energy sectors (collectively these sectors made up approximately 90 per cent of gross emissions in 2022). Although our energy system is largely decarbonised, transport is the largest contributor to energy emissions.
	Since 1990, New Zealand has experienced high population growth. New Zealand's economy has been growing faster than its emissions, showing signs that economic growth is decoupling from emissions.

#### Information

New Zealand's agricultural system is largely pastoral. It is fundamental to the economy (with the agricultural sector – excluding forestry, seafood and processed foods – contributing 64 per cent of New Zealand's merchandise exports in the year ended March 2024), exporting products to countries all over the world.

Our agriculture sector contributes to New Zealand's unique emission profile, contributing to over half of our gross emissions at the time of this communication. In 2022, 49 per cent of New Zealand's gross emissions were from biogenic methane, and 9 per cent from nitrous oxide, predominantly from our agriculture sector. There are currently few commercially available solutions to mitigate biogenic methane and nitrous oxide emissions, which makes achieving deep emissions cuts from these sources of emissions difficult for New Zealand.

New Zealand farmers have made significant improvements in production efficiency across the agriculture sector. This means that while overall production has increased, emissions per unit of production have significantly decreased. As a result, gross emissions from agriculture have remained relatively stable since 2006.

The New Zealand Government is investing significantly to accelerate the development and commercialisation of tools and technologies to reduce emissions from the agriculture sector. This will get technologies to market faster, enabling earlier uptake and impact. We expect to see the uptake of mitigation solutions increase over time, which will support meeting our climate change targets, as well as further improving the carbon footprint of our agricultural products. New Zealand's farming and growing systems are diverse, and not all mitigation tools will work for all. This is why the Government is focused on delivering a range of adoptable solutions suitable across different farm system types. We expect that these tools will be able to be used internationally – bringing wider benefit to global emissions reduction efforts. Through our international partnerships, such as the Global Research Alliance on Agricultural Greenhouse Gases, New Zealand will also continue to collaborate globally to address agricultural greenhouse gases while maintaining food production.

#### Information

New Zealand has abundant renewable energy resources and a long history of renewable energy development. In 2023, 88.1 per cent of electricity generation came from renewable sources – primarily hydro, geothermal, and wind – contributing to relatively low energy sector emissions. This is better than the OECD average, which is about 30 per cent. Continued development of geothermal and wind renewables has seen the amount of electricity generated from these sources more than triple since 1990. We continue to look to make further gains in this area. However, the high levels of existing renewable electricity generation means New Zealand has limited emissions reductions potential in the sector. Our greatest opportunity is therefore electrifying other sectors of the economy, and exploring technological solutions for areas with higher abatement costs.

New Zealand has a significant forest estate and industry. We had 10.0 million hectares of forest in 2022, covering approximately 37 per cent of our land. Of this, 7.8 million hectares were natural (indigenous) forests, and 2.2 million hectares were planted. These forests contribute significantly to removing carbon dioxide from the atmosphere. Considerable investment in forestry in recent years will further help us meet our emissions reductions goals. Appropriate incentives will be required to balance encouraging afforestation for increased sequestration with other land uses.

Tokelau has been a dependent territory of New Zealand since 1926 and is considered 'part of New Zealand' for certain purposes under the Tokelau Act 1948 (NZ). The extension of New Zealand's ratification of the UNFCCC and the Paris Agreement to Tokelau was announced on 13 November 2017. Tokelau is included in New Zealand's NDCs.

Tokelau's low-lying atolls are extremely vulnerable to the impacts of climate change and related hazards. The Government of Tokelau was engaged with to understand Tokelau's interests and views in the development of the NDC. Tokelau's submission on the second NDC highlights its vulnerability to climate impacts, and consequences for the people living on the three atolls. "As an island nation at the forefront of climate change, the priorities for Tokelau are survival – to live and thrive with change". Tokelau is committed to tackling climate change.

Sub-element	Information
	New Zealand works with Tokelau on how best to reflect its climate change strategies and plans. Information on Tokelau and its emissions are included in New Zealand's Greenhouse Gas Inventory and our Biennial Transparency Reports.
	Refer to <u>New Zealand's latest Biennial Transparency Report</u> for further information on our national circumstances.
<ul><li>(b) Best practices and experience related to the preparation of the nationally determined contribution</li></ul>	New Zealand has applied the rules set out in 4/CMA.1. See also Element 4a(i) above.
<ul><li>(c) Other contextual aspirations and priorities acknowledged when joining the Paris Agreement</li></ul>	New Zealand is committed to an effective multilateral response to climate change that has environmental and scientific integrity and is rules-based. We will play our part alongside our partners to support the Paris Agreement to be effective. It is in our interests to transition our economy, as part of a concerted global effort, to be low emissions and climate resilient.
Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement, including the Parties that agreed to act jointly and the terms of the agreement, in accordance with Article 4, paragraphs 16–18, of the Paris Agreement	Not applicable.

# 4.c. How the Party's preparation of its nationally determined contribution has been informed by the outcomes of the global stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement

#### Information

New Zealand welcomed the outcomes of the first Global Stocktake in 2023, which has informed our second NDC. We believe these outcomes are best considered as a whole, where New Zealand uses our NDC to express intended mitigation goals.

As encouraged by the Global Stocktake, our second NDC is economy-wide, covers all greenhouse gases, sectors and categories, and reflects the latest science, as well as our national circumstances.

The Global Stocktake recognised the need for urgent climate change action and support to keep 1.5°C within reach.

Our second NDC will make a credible contribution toward 1.5°C, as the range is greater than our assessment of the global average rate of emissions reduction required to keep global warming within 1.5°C – when considering New Zealand's unique emissions profile, and disaggregation of emissions reductions pathways by gas. The NDC aligns with our third domestic emissions budget, as well as allowing us to achieve greater net emissions reductions below the domestic budget limit. This puts us on track to reduce emissions at a pace fast enough to achieve our domestic net zero target for all greenhouse gases (excluding biogenic methane) by 2050. In doing so, our second NDC thereby contributes toward reducing total global emissions by the levels deemed necessary to stay within 1.5°C as outlined in the 2023 Global Stocktake. Details on the alignment of our second NDC with 1.5°C is provided under Element 7b.

The Global Stocktake further called on Parties to contribute to specific efforts not specifically related to NDCs, such as on energy emissions, methane emissions, and forests and ecosystem restoration. New Zealand is also taking considerable and concerted action in these areas, as outlined in our domestic emissions reductions plans and Biennial Transparency Reports, available on the Ministry for the Environment website.

ub-element	Information
4.d. Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation action and/ or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement to submit information on:	Not applicable.
<ul> <li>(i) How the economic and social consequences of response measures have been considered in developing the nationally determined contribution</li> </ul>	

#### Information

(ii) Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also yield mitigation co-benefits, which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and forestry; and economic diversification actions, which may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communication, construction, tourism, real estate, agriculture and fisheries

Not applicable.



Table 5: Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals

Sub	-element	Information	
5.a.	Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the Party's NDC, consistent with decision 1/CP.21, paragraph 31, and accounting guidance adopted by the CMA	New Zealand will account for the LULUCF sector using a combination of the 2006 IPCC Guidelines, refinements or supplements to the 2006 IPCC Guidelines, and the 2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol. Further details are provided below. Any information on country-specific methodologies applied will be consistent with Article 13, paragraph 7(a) of the Paris Agreement, and paragraph 1(b) of Annex II of Decision 4/CMA.1.  New Zealand's approach will demonstrate consistency with greenhouse gas inventories, pursuant to Article 13, paragraph 7(a), of the Paris Agreement.	
5.b.	Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the NDC	Not applicable. New Zealand's second NDC is an economy-wide absolute reduction in greenhouse gas emissions.	
5.c.	If applicable, information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement, as appropriate (i.e. how we promote environmental integrity, TACCC, and ensure avoidance of double counting)	See Element 5d below.	

Sub-element		Information
5.d.	IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals	<ul> <li>Methodologies:</li> <li>2006 IPCC Guidelines</li> <li>2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands</li> <li>2013 KP Supplement</li> <li>2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories</li> <li>Metrics:</li> <li>GWP100 values from AR5, or in accordance with decisions agreed by the CMA.</li> </ul>
5.e.	Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable:	New Zealand's accounting approach to the LULUCF sector builds on IPCC methodologies, Transparency, Accuracy, Consistency, Completeness, and Comparability (TACCC) principles and existing guidelines, updating and improving them for the period from 2031 to 2035.  Accounting provisions to address natural disturbances on managed lands, non-anthropogenic effects and, additionally, since the activity start year will continue to apply, building on existing
	<ul> <li>(i) Approach to addressing emissions and subsequent removals from natural disturbances on managed lands</li> <li>(ii) Approach used to account for</li> </ul>	guidance and experience.  Accounting for harvested wood products will be based on the production approach.  New Zealand's LULUCF approach to address the effects of age-class structure in forests builds on our experience with accounting under the Kyoto Protocol to recognise and focus on additional action. This approach creates incentives for the establishment of new forests,
	emissions and removals from harvested wood products  (iii) Approach used to address the effects of age-class structure in forests	recognises permanent and long-term enhancements of carbon sinks resulting from managemen and takes responsibility for deforestation while accommodating the long-term cycles in net emissions and removals that arise from the sustainable forest management of production forest.

#### Information

- methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including:
  - corresponding emissions and removals, including:

    (i) How the reference indicators, baseline(s) and/or reference level(s), including, where applicable, sector-, category- or activity-specific reference levels, are constructed,

including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used

(ii) For Parties with nationally determined contributions that contain non-greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable

In relation to Element 5f(i): New Zealand's approach to accounting for the LULUCF sector has been developed in accordance with the 2006 IPCC Guidelines, consistent with decision 18/CMA.1. The LULUCF component of New Zealand's target accounting approach is consistent with the methodological guidance provided in the 2013 KP Supplement.

Elements 5f(ii), (iii) and (iv) are not applicable.

Sub-element		Information
	(iii) For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated	
	(iv) Further technical information, as necessary	
5.g.	The intention to use voluntary cooperation under Article 6 of the Paris Agreement, if applicable	New Zealand aims to achieve our second NDC primarily through domestic emissions reductions and removals. We recognise the value of international cooperation and may participate in cooperation under Article 6 during the NDC period. We will ensure any participation is consistent with all applicable guidance and is reported through our Biennial Transparency Reports. We are committed to ensuring cooperative approaches have environmental integrity through robust accounting for the avoidance of double counting, and to ensure transparent reporting.



#### Table 6: How the Party considers that its NDC is fair and ambitious in the light of its national circumstances

Sub-element	Information
<b>6.a.</b> How the Party considers that its NDC contribution is fair and ambitious in the light of its national circumstances	New Zealand considers our second NDC to be fair and ambitious in light of our national circumstances.  Our national circumstances make abatement both challenging and costly. As outlined in Element 4a(ii)(a), our national circumstances include, among others, high agricultural emissions, a growing population and already achieving high levels of renewable electricity generation. As a small, export-exposed economy, these factors mean our gross emissions reductions comparatively carry considerable social, cultural, and economic costs. New Zealand also has substantial rates of carbon sequestration from forestry.
	New Zealand contributed approximately 0.14 per cent of global gross emissions in 2022. While our total contribution to global emissions is relatively small, our per capita gross emissions for all greenhouse gases are significantly higher than the developed-country average. This is due to our high levels of biogenic methane emissions, which have a strong, but short-lived, atmospheric effect. When looking at net carbon dioxide emissions only, our per capita emissions are relatively low compared to similar developed countries, owing to substantial carbon sequestration from forestry. Given our national circumstances, and based on the most recent IPCC report findings, reducing long-lived greenhouse gases and removing carbon dioxide from the atmosphere is our focus, alongside deep reductions in other greenhouse gases.
	New Zealand's Commission takes into account our national circumstances in considering our domestic climate change settings. In advising on our domestic emissions budgets, the Commission assessed the emissions reductions New Zealand could achieve domestically without creating undue risks and impacts on vulnerable parts of our population.

Sub-element	Information
	The lower end of our NDC range aligns with our third emissions budget, which reflects these considerations. However, the upper end of the range goes beyond our third domestic emissions budget to achieve greater emissions reductions but still remains feasible and within touching distance to reflect these considerations, and ongoing investment in technologies to reduce emissions.
<b>6.b.</b> Fairness considerations, including reflecting on equity	In considering fairness, New Zealand looked at factors such as: national circumstances; cost of effort, including to the economy; resource sharing, such as sharing greenhouse gas emissions, including carbon dioxide versus methane per capita; 1.5°C alignment; abatement required to meet our NDC target, and the gap between the business-as-usual emissions curve and the emissions curve needed to meet our NDC target.
<b>6.c.</b> How the Party addressed Article 4, paragraph 3, of the Paris Agreement	This NDC is New Zealand's fourth international mitigation target. Each of these has been progressively stronger, and represents a progression beyond previous efforts.
<ul><li>(i.e. how NDC target represents progression and highest possible ambition)</li></ul>	It is an increase in ambition in terms of the headline number and emissions impact, and a reduction from business-as-usual emissions.
±,	Based on the factors that have informed New Zealand's second NDC target (as outlined here and in Element 4a), New Zealand has determined that this target represents our highest possible ambition, in light of our national circumstances and respective capabilities.
	The NDC range is projected to put the country on a trajectory that is in line to achieve net zero from all greenhouse gases from current levels, and a steeper trajectory in reducing domestic long-lived greenhouse gases towards our 2050 net zero target (excluding biogenic methane), relative to a linear trajectory from current levels.

Sub-element	Information
6.d. How the Party has addressed Article 4, paragraph 4, of the Paris Agreement (i.e. developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets)	New Zealand's second NDC is New Zealand's fourth international mitigation target. New Zealand continues to take the lead by undertaking an economy-wide absolute emissions reduction target for its second NDC, as it has for all international mitigation targets since 2008.
Article 4, paragraph 6, of the Paris Agreement (i.e. least developed and small island developing states may prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances)	Not applicable.



## Table 7: How the NDC contributes towards achieving the objective of the Convention as set out in its Article 2

#### Sub-element **Information** 7.a. How the nationally determined New Zealand considers that our second NDC contributes towards Article 2 of the Convention, contribution contributes towards and Article 2, paragraph 1(a) and Article 4, paragraph 1 of the Paris Agreement. achieving the objective of the New Zealand analysed a range of indicators to assess the alignment of our NDC with limiting Convention as set out in its Article 2 global warming to 1.5°C, guided by the latest and best available science from the IPCC's Special Report on Global Warming of 1.5°C, the IPCC's Working Group I: The Physical Science Basis (2021) **7.b.** How the nationally determined report, the IPCC's Working Group III: Mitigation of Climate Change (2022), and the UNEP Emissions contribution contributes towards Gap Report 2024. Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris New Zealand's second NDC range is greater than the global average rate of emissions reductions Agreement (i.e. global temperature required to keep global warming to 1.5°C when biogenic methane from the waste and agriculture goals, including to limit global sectors are disaggregated and analysed separately to other greenhouse gases. This approach temperature to 1.5°C) recognises the high proportion of biogenic methane from agriculture in New Zealand's emissions profile and its difference from the global emissions profile referenced in the 2023 Global Stocktake, and disaggregation of these global pathways by gas. This puts New Zealand on track to reduce emissions at a pace fast enough to achieve our domestic net zero target for all greenhouse gases (excluding biogenic methane) by 2050. In doing so, our second NDC thereby contributes toward reducing total global emissions by the levels deemed necessary to stay within 1.5°C as outlined in the 2023 Global Stocktake. Our NDC will make a credible contribution towards 1.5°C by reflecting the emissions reductions

we will make through our third domestic emissions budget, while striving to go beyond this

budget limit.



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