



## 2021-B-07550 Initial response to the Climate Change Commission's draft advice on the NDC

Date Submitted:	18 February 2021	Tracking #: 2021-B-07550	
Security Level	In Confidence	MfE Priority:	Non-Urgent

	Action sought:	Response by:
To Hon James Shaw, Minister of Climate Change	Forward this briefing to Hon Nash, Minister of Forestry, Hon Mahuta, Minister of Foreign Affairs, and Hon O'Connor, Minister of Agriculture and Trade and Export Growth	22 February

Actions for Minister's Office Staff	<b>Return</b> the signed report to MfE. <b>Forward</b> to Hon Nash, Minister of Forestry, Hon Mahuta, Minister of Foreign Affairs, and Hon O'Connor, Minister of Agriculture and Trade and Export Growth
Number of appendices and attachments: Nil	Titles of appendices and attachments: Nil

### Ministry for the Environment contacts

Position	Name	Cell phone	1 <sup>st</sup> contact
Principal Author	Chloe Rumsey		
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Director	Lisa Daniell	s 9(2)(a)	✓

## 2021-B-07550 Initial response to the Climate Change Commission's draft advice on the NDC

1. This briefing provides you with a more detailed reading of the Climate Change Commission's (Commission's) draft advice on New Zealand's first Nationally Determined Contribution (NDC). We highlight some of the issues and questions arising from their approach that we will seek to clarify, and outline additional considerations the Government may wish to make if it wishes to change the NDC.
2. This briefing builds on our initial summary of the Commission's draft report (2021-B-07518 refers) and earlier advice from officials on the consistency of New Zealand's first NDC with 1.5°C (2020-B-06407 refers).
3. This briefing does not express any recommendation about whether the Government should enhance its existing NDC, or how it might do so. This is because further work is needed, including across agencies, before these recommendations can be developed. This process is consistent with the Commission's draft advice which was clear that any decision about the degree to which New Zealand's NDC was enhanced, would require a political consideration of trade-offs between a range of competing factors.
4. We intend to provide our early recommendations about potential changes to our NDC in a further briefing in April 2021, following the Commission's public consultation period, and final recommendations in a briefing once the Commission's final report is released, after 31 May.
5. The Commission concluded in its draft advice that our current NDC target of cutting emissions by 30% by 2030 compared to 2005 levels is not compatible with Aotearoa making a contribution to global efforts under the Paris Agreement to limit warming to 1.5°C above pre-industrial levels. The Commission recommended that a target of "much more than 35% below 2005 levels by 2030" would be compatible.
6. If the Commission's final advice on New Zealand's NDC is similar to its draft advice, a large amount of additional analysis work will be needed from officials on this subject. This is because the Commission has not recommended a single target level, it has left a range of questions open and answering those questions will require a number of value judgements to be made.
7. Determining the compatibility of any NDC with a commitment to limit global warming to 1.5°C is a value-laden exercise with no universally-accepted methodology. Value judgements are present in both the choice of any methodology used for this type of analysis and further value judgements are needed in the interpretation of the results.
8. The Commission's draft report is also clear that offshore mitigation will be needed to bridge the gap between the domestic emissions budgets and the current NDC, and that the Commission's draft recommendation to increase the NDC's ambition would require further additional offshore mitigation.
9. The Commission's draft recommendations on the need for offshore mitigation to meet our current NDC are broadly consistent with work that is already underway on international carbon markets within MfE and the Ministry of Foreign Affairs and Trade (MFAT). This includes linking the NZ ETS with international markets, and preparation of a Cabinet paper for mid-2021 which will outline a strategy for the purchase and use of offshore mitigation as well as seeking specific negotiation mandates.
10. While the Commission was not asked to provide a comparison of New Zealand's NDC to those of other countries, they included tables in their draft advice summarising the headline

targets from a range of other Parties to the Paris Agreement, including major emitters and our largest trading partners. These headline targets do not provide a “like-for-like” comparison of Parties’ NDCs and officials will also need to do further work in this area so that a better comparison can be made. This analysis and advice will be included in the forthcoming briefing notes.

11. We have consulted with other agencies (including MFAT, the Ministry for Primary Industries (MPI) and the Ministry of Business, Innovation and Employment (MBIE) in the preparation of this briefing and included their views. This will be built on as agencies provide separate advice to their Ministers.

## Recommendations

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12. We recommend that you:

- a. **Note** the preliminary nature of this analysis, based on the Commission’s draft report
- b. **Note** that officials will provide you with further briefings on the Commission’s NDC advice, reflecting our further analysis, stakeholder inputs during the public consultation process, and further advice from the Commission once their final report has been released
- c. **Note** a more comprehensive analysis of New Zealand’s first NDC against a global goal of 1.5°C is likely to result in a wide range of NDC targets that could all be regarded as consistent with that global goal in some respect
- d. **Note** there are a number of other considerations, alongside consistency with the 1.5°C temperature limitation goal, that should inform a decision about the level of the NDC
- e. **Note** it will be important to carry out a more detailed comparison with other Parties’ NDC commitments to support final advice on how ambitious New Zealand’s NDC should be
- f. **Forward** this briefing to Hon Nash, Minister of Forestry, Hon Mahuta, Minister of Foreign Affairs, and Hon O’Connor, Minister of Agriculture and Trade and Export Growth
- g. **Agree** that this briefing and appendices will not be released proactively on the Ministry for the Environment’s website until the Government has responded to the Commission’s final advice

Yes/No

**Signature**

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*Approved electronically*

Lisa Daniell  
Director – Climate change mitigation  
**Climate**

Hon James Shaw  
**Minister of Climate Change**

**Date**

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## 2021-B-07550 Analysis of the Climate Change Commission's draft advice on the NDC

### Supporting material

#### Purpose

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1. The purpose of this briefing is to provide you with officials' initial views on the Climate Change Commission (the Commission)'s draft advice on New Zealand's first Nationally Determined Contribution (NDC) under the Paris Agreement. It outlines areas of potential further work, and possible implications.

#### Context

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2. On 31 January 2021, the Commission released its draft advice for consultation on the domestic emissions budgets, New Zealand's NDC, and the treatment of biogenic methane in our domestic and international climate change targets.
3. Below is our initial thinking on the issues raised by the Commission in Chapters 4 and 8 of their draft report (contribution to the 1.5°C goal and our Nationally Determined Contribution), which includes areas we consider will need further analysis.

#### Analysis and Advice

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##### ***What questions does the Commission's draft report answer, and which ones are left open?***

4. The Commission's draft report responds to your request to the Commission under Section 5(k) of the Climate Change Response Act 2002. Specifically, you asked the Commission to provide a report on the country's first NDC under the Paris Agreement that includes:
  - a. advice on whether the NDC is compatible with contributing to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5°C above pre-industrial levels
  - b. recommendations on any changes to the NDC required to ensure it is compatible with global efforts under the Paris Agreement to limit the global average temperature increase to 1.5°C above pre-industrial levels.
5. We note upfront that there is no "scientific" way for the Commission to answer this request. Answering these questions involves making inherently value-laden judgements on how to translate global pathways to a national level, which can lead to highly divergent results.
6. The Commission's answer to these questions describes a range of NDC emission budgets for New Zealand that might be deemed consistent with limiting global warming to 1.5°C. It includes a quantitative methodology, which in itself contains important value judgements (for example historical responsibility), as well as high-level additional qualitative considerations. We outline and explore the Commission's analysis below.

##### ***Conclusions and methodology behind the Commission's draft advice on the NDC***

7. The headline conclusions from the Commission's draft analysis of New Zealand's NDC are:
  - *"the first NDC is not compatible with Aotearoa making a contribution to global efforts*

*under the Paris Agreement to limit warming to 1.5°C above pre-industrial levels”*

- *“to make the NDC more likely to be compatible with contributing to global efforts under the Paris Agreement to limit warming to 1.5°C above pre-industrial levels, the contribution Aotearoa makes over the NDC period should reflect a reduction to net emissions of much more than 35% below 2005 gross levels by 2030, with the likelihood of compatibility increasing as the NDC is strengthened further.”*

8. The Commission arrived at this conclusion by:
  - a. selecting global pathways from the Intergovernmental Panel on Climate Change (IPCC) Special Report on 1.5°C that limit warming to 1.5°C with no or low overshoot of this temperature goal,
  - b. analysing the global rates of reduction of net carbon dioxide, agricultural methane and nitrous oxide in those pathways between 2010 and 2030, and then
  - c. applying these global percentage reductions to New Zealand’s emissions, starting from New Zealand’s pledged 2020 emissions target and using a gross-net approach, to calculate NDC emission budgets.
9. This approach yields a range of NDC budgets of 524 to 604 Mt CO<sub>2</sub>-e. New Zealand’s existing NDC budget (recalculated by the Commission to be 585 Mt CO<sub>2</sub>-e based on the latest greenhouse gas inventory) sits near the upper end of this range.
10. The Commission considered that New Zealand had to be at least at the midpoint of this range. The midpoint is an emissions budget of 564 Mt CO<sub>2</sub>-e and a nominal emissions reduction target of -35% on 2005 levels in 2030.
11. The Commission further stated that as a developed country, New Zealand would be expected to reduce emissions proportionally faster and further than the global average. Actual emissions reductions should therefore be “much more” than those implied in a 35% reduction.
12. At a high-level the Commission also listed additional factors which could influence Government decision-making including:
  - a. principles for global effort sharing;
  - b. the tolerance for climate risk, reputational risk and economic impact; and
  - c. non-mitigation contributions.
13. However, the Commission did not quantify how much these additional considerations would alter its benchmark reduction of at least 35%.
14. These considerations impact decision-making in different ways:
  - a. Effort sharing principles relate to equity value judgements such as “responsibility for past emissions”, “equality of access to the atmosphere” and “capability and acknowledging the right to economic development”. These principles can inform judgements about the consistency of New Zealand’s target with 1.5°C as a global objective and do not depend on other countries’ actual targets.
  - b. Reputational risk and economic impacts relate mostly to the consistency of New Zealand’s NDC with the actual actions, pledges and perceptions of other countries, international expectations, and the cost to New Zealand of meeting its target.
  - c. Non-mitigation contributions relate to supplementary commitments under the Paris Agreement that round out New Zealand’s overall contribution such as provision of climate finance to developing countries.

***Issues and questions arising from the Commission’s draft advice***

15. The Commission’s approach uses the rate of global reductions in IPCC pathways as a

quantitative 'starting point' to calculate a national target. Global equity judgements and other considerations would then be applied on top of this starting point but are not quantified.

16. The quantitative methodology taken by the Commission already contains a significant value judgement. If the Commission's approach were used as general principle, countries and sectors with currently higher than average per capita emissions (many developed countries) would remain consistently above average emitters in future, whereas countries and sectors with lower than average per capita emissions (including many developing countries) would have to remain below the global average in future. The Commission's methodology is therefore akin to a grandparenting approach to target setting. Grandparenting is often seen as problematic from an equity perspective as it rewards higher current polluters with a larger future share of a common resource.
17. Although the Commission notes in its draft report that "holding the proportionate reductions equal across countries is not an equitable approach", it is the only quantitative indicator the draft report provides. The draft provides no explanation why this approach was chosen or illustrates how different the quantitative result would be if other approaches were used.
18. A range of alternative methodological choices exist, each option reflecting different value judgements for how to get from a global emissions pathway to a national level of effort. These can result in potentially very different indicative NDC budgets that might all be considered consistent with 1.5°C. For example:
  - Constant share of the global emissions budget: in a briefing provided to you in February 2020 (20-B-06407), officials used another methodology and found a median budget for a 1.5°C compatible NDC could be 516 Mt. This approach also incorporates a grandparenting principle, namely that New Zealand's relative share of global emissions would remain the same over time. The advice stated that this approach did not provide an assessment of New Zealand's 'fair share' of the global burden.
  - Equal per capita emissions: dividing the global emissions consistent with limiting warming to 1.5°C equally across each person would result in a much smaller NDC budget for New Zealand of about 250 Mt CO<sub>2</sub>-e. This approach would give each person across the world the same emissions allowance from now on and takes no recognition of New Zealand's current level of emissions.
19. Other commonly used burden-sharing principles include historical responsibility and capacity to pay, which would further modify any of the quantitative results from the above approaches:
  - Historical responsibility, which can only be applied to past emissions of long-lived gases since the warming from methane is relatively short-lived.
  - Capacity to pay, which assumes that countries with higher than average per capita incomes/GDP should take a greater share of an otherwise equitable burden.

These principles are components of "common but differentiated responsibilities and respective capabilities, in the light of different national circumstances" as set out in the Paris Agreement.

20. We do not endorse any particular methodology but stress that there is no value-neutral, purely scientific way of calculating an emissions share for a country that would be consistent with a global emissions pathway; each approach depends on a unique set of value judgements, which can produce markedly different results. There is no generally accepted method for supporting the decision about how much mitigation is required for a country to do their "fair share" and show adequate ambition and climate leadership. The Commission's analysis uses only one methodology to derive some benchmark numbers and its limitations must be kept in mind.

21. Officials will observe the Commission's consultation process to gain a better picture of public views on the approach taken by the Commission. We will also engage with the Commission to determine what, if any, additional analysis they intend to do following the public consultation period.
22. Officials may also attempt to apply the Commission's and other methodologies to other countries to explore how the burden would be split between countries. This is not intended to demonstrate the appropriateness of other countries' NDCs or call into question their ambition, but to illustrate the wide range of choices, and implications of those choices, if consistency with the global goal of 1.5°C were taken as the sole objective for New Zealand's target.
23. We also note that the Commission's approach to calculating the carbon budget associated with a given headline target differs from New Zealand's past practice. It will be important to be clear about the impact of any difference in methodological approach, and that genuine increases in ambition are not potentially obscured by methodological differences.

#### *Other agencies' views*

24. MFAT has provided separate advice on New Zealand's obligations under the Paris Agreement and related international expectations.
25. International Policy directorate at MPI noted their concerns about how the Commission has interpreted the respective roles of developing and developed countries within the Paris Agreement.

#### **Comparison between the efforts of other countries**

26. A comparison between countries' NDCs is useful and necessary for understanding how New Zealand's level of ambition 'sits' in relation to what other countries consider feasible and ambitious for their respective international emissions reduction targets. Although this was not within the scope of your request to the Commission, there is a very brief discussion of this in their draft report.
27. Comparisons between countries' NDCs may be an important consideration when deciding if and how to enhance New Zealand's NDC since this will affect our competitive advantage in international markets and thus have a large influence on the relative economic and social costs to New Zealand of meeting its target.
28. Chapter 2 of the Commission's draft evidence report includes a brief comparison of countries' NDCs. The Commission's analysis is very high level. It contains a comparison table of New Zealand's NDC with the top five emitting countries (China, USA, EU, India, Russia) as well as a comparison with our top five trade partners (China, Australia, USA, Japan, Germany).
29. We consider the Commission's draft analysis has the following limitations:
  - a. Their analysis only includes a comparison of the headline numbers of Parties' NDCs and does not compare other aspects of the NDC. For example, this does not take into account the forecast emissions, emissions intensity, historical responsibility, cost of abatement or emissions profile.
  - b. There is no comparison of the form of each of these targets. The emissions budgets approach which is used by New Zealand to calculate its abatement task is shared internationally by only Australia and Switzerland. Comparing countries without taking this approach into account means the abatement tasks are not accurately represented.

30. s 6(a)

[REDACTED]

31. There are other approaches that officials will explore that help to highlight the importance of going beyond the headline NDC targets.

32. There are many perspectives on appropriate methodologies for comparing the effort implied in the NDCs of different countries. Officials will undertake further analysis on how the level of ambition in New Zealand's first NDC compares to other countries and share this with you in the April briefing.

*Other agencies' views*

33. Agencies agreed it was important to explain our target well, to prevent it from being misunderstood and incorrectly compared (often resulting in the target seeming less challenging to meet than it is).

**Meeting target implications**

34. The Commission's report is clear that offshore mitigation will be needed in addition to the domestic emissions cuts achieved through emissions budgets and the Emissions Reduction Plan. The Commission estimates 43 Mt CO<sub>2</sub>-e will be needed to meet the current NDC and estimates that a range from 43 to 104 Mt CO<sub>2</sub>-e could be needed to meet an NDC with increased ambition.

35. The Commission acknowledges that costs for offshore mitigation are uncertain and estimates economic costs of between \$3.5bn and \$11.5bn for an NDC with increased ambition of -35% on 2005 levels in 2030. The Commission also notes that offshore mitigation could be paid for by the Government, emitters or a combination of the two and recommends that the Government immediately develop a plan for how it will access and purchase offshore mitigation and take steps to implement it.

36. The Commission further recommends that the Government should hold itself accountable for meeting the NDC through regular transparent reporting, including the disclosure of any fiscal risks that may arise from the purchasing offshore mitigation and its strategy for managing those risks.

37. The Commission's analysis of offshore abatement under our first NDC is very high level but is in line with officials' longstanding advice that offshore mitigation will be needed to meet the NDC (and which is signalled in the NDC itself). Largely its recommendations relate to work already underway as part of the Climate Change work programme:

- s 9(2)(j)
- Officials are developing a strategy for the purchase and use of offshore mitigation, to form part of Cabinet's discussion of a mandate for specific ETS links, which will include analysis on the costs, risks and opportunities from accessing offshore mitigation

38. You have a Cabinet report back on how to account for the costs of meeting the NDC in July this year. MfE and Treasury officials will build this into their joint work on an approach to funding and financing the transition. You have a meeting scheduled for 10 March with the Minister of Finance to discuss this approach. The characterisation of offshore mitigation in the report is positive on the role that it could play alongside domestic reductions and removals. However, it reads as focussed on projects in developing countries and scenarios where the Government purchases mitigation directly. s 9(2)(g)(i)

[REDACTED]

39. s 9(2)(j)

[REDACTED]

*Other agencies' views*

40. Agencies agreed that the Commission's report opened up the discussion around the use of international units more openly, and this was a positive starting point for public discussions.

41. Further work is needed on the costs of accessing additional offshore mitigation in the enhanced ambition scenarios outlined in the Commission's advice. We plan to undertake this to complement the work outlined above on accessing offshore mitigation, to inform expected Cabinet discussions on the NDC and offshore mitigation later this year (2020-B-07423 refers).

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### Timeline and process

42. This briefing is the first of three briefings to you on the Commission's NDC advice. The table below outlines the process:

Timeframe	Minister	Purpose	Led by
April	Minister of Climate Change, recommend the Minister forwards to Climate Change Ministers	<p>This briefing will give more substantive advice on implications from the draft advice and next steps needed for NDC decisions/response to final advice:</p> <ul style="list-style-type: none"> <li>• Could propose a work programme on the NDC e.g. process steps, timeframes, public consultation (if necessary).</li> <li>• Could include commentary / analysis on themes from the Commission's public consultation, or international developments.</li> <li>• Could outline implications for NDC2</li> <li>• Could include preliminary work to illustrate the relative importance of issues left open in the Commission's draft advice.</li> </ul>	MfE
June	Climate Change Ministers	<p>Briefing on final advice:</p> <p>This joint briefing will advise on the Commission's NDC advice and assessment and provide recommendations for the Government's response to the Commission. This is when we will advise on whether officials agree/ disagree, and consequences/next steps.</p>	Joint across agencies

43. Officials will meet again with other agencies prior to providing the final advice (in June 2021) to you.

### Consultation and Collaboration

44. On 2 February 2021, we met with MFAT, MPI and MBIE officials at an interagency sprint to discuss our thinking on the Commission's draft report. The views from other agencies are reflected throughout this briefing.

45. Agencies agreed to continue contributing to MfE's further NDC analysis and briefings, to ensure our advice to you is joined up and robust. MFAT will provide advice on New Zealand's obligations under the Paris Agreement separately, however. We will continue to communicate with the Commission, in order to provide feedback and ask methodological questions, recognising their advice needs to be independent.

46. Agencies are likely to separately advise their Ministers on the implications of the Commission's draft NDC advice for their portfolios.
47. MFAT will provide companion advice relating to the Commission's interpretation of the Paris Agreement in the draft advice.

### **Next Steps**

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48. Officials will begin work on further analysis for both the question of New Zealand's first NDC's compatibility with the global effort under the Paris Agreement to limit global warming to 1.5°C and the comparison of New Zealand's NDC with those of other countries.
49. We will continue to engage with the Commission on these issues and work together across agencies where needed.

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