



Nelson Tasman Climate Forum Submission

Aotearoa New Zealand's second Nationally Determined Contribution (NDC2)

8 December 2024

Nelson Tasman Climate Forum – Who we are

The [Nelson Tasman Climate Forum](#) launched in February 2020 as a community-led climate action initiative open to everyone. The Forum aims to weave the community together around urgent, strategic action to achieve the following goals:

- Rapidly reduce the region's greenhouse gas emissions, increase carbon sequestration and undertake other climate stabilising initiatives, consistent with the urgency of the situation.
- Adapt to the likely adverse environmental effects of climate change and the resulting social and cultural effects, using inclusive and responsible decision-making to support these desirable outcomes.
- Respond to climate change in a way that recognises the rights of all living organisms, including people, and provides for a just, equitable, and resilient society.

The Forum is volunteer-led, apolitical, and registered as a non-profit partner under the Tasman Environmental Trust. In the four years the Forum has been functioning, volunteers have carried out over 30 community projects. These projects range across many climate initiatives and include monthly Repair Cafés in Nelson and Tasman, a yearly Climate Action Festival, a climate action campaign called [Take the Jump](#), art events and photography exhibitions, a Climate Action Plan and Book for the region, climate conversations with varied groups across the community, several waste reduction projects, letter writing campaigns, government and council submissions, and the protection and restoration of native habitats.

This submission has been compiled by the [NTCF Submissions Group](#). We thank you for the opportunity to present this submission and for your consideration of our contribution.

1. Introduction

- 1.1 Our submission opens with the urgency of climate action. It then focusses on our Paris Agreement commitment that our second Nationally Determined Contribution (NDC2) reflect [Aotearoa New Zealand's] **highest possible ambition**. We then advocate the Government, rather than operating inside a short-term cost mindset, recognise and engage in public discourse that the funding of climate mitigation needs to take account of the costs of **climate inaction** as much as of **climate action**.
- 1.2 Addressing the existential threat of global climate change requires international cooperation of the highest order, through the legally binding Paris Agreement. We see the NDC2 as our declaration to the world of our recognition of that reality, and, in justice, taking responsibility for our disproportionate contribution of emissions to the global atmosphere.
- 1.3 Previous NDCs have been of great public interest e.g. 17 000 written submissions for the first NDC in 2015.¹ We think it singularly unfortunate that the present invitation for public 'feedback' to contribute to setting of the NDC2 is so limited: five narrowly framed questions, three weeks for the public to contribute, a Climate Change Commission investigation and report confined to the contribution of domestic emissions towards the NDC. Not proceeding with the previous request for a full CCC report has left us without a full package of expert advice to consider in formulating our contributions to NDC2.

2. Urgency of climate action

- 2.1 The 2023 Global Stocktake² (a five yearly process established under Article 14 of the Paris Agreement) found that humanity has avoided a potential 4°C increase. Humanity though is still on a path to a 2.1-2.8°C increase (if all current climate action plans are implemented), way above the 1.5°C limit that would avoid the worst impacts of climate change.
- 2.2 'The costs of climate change are often estimated in monetary terms ... here we express them in terms of numbers of people left outside the 'human climate niche'—defined as the historically highly conserved distribution of relative human population density with respect to mean annual temperature. We show that climate change has already put ~9% of people (>600 million) outside this

¹ Carbon News 2034. [Will govt consult the public over climate target?](#)

² UNFCCC 2024. [Global Stocktake](#).

niche. By end-of-century (2080–2100), current policies leading to around 2.7°C global warming could leave one-third (22–39%) of people outside the niche. Reducing global warming from 2.7 to 1.5 °C results in a ~5-fold decrease in the population exposed to unprecedented heat (mean annual temperature ≥ 29 °C) ... high temperatures have been linked to increased mortality, decreased labour productivity, decreased cognitive performance, impaired learning, adverse pregnancy outcomes, decreased crop yield potential, increased conflict, hate speech, migration and infectious disease spread.³

3. Highest possible ambition

- 3.1 Our current (NDC1) headline target is a 50 per cent reduction of net emissions below our gross 2005 level from 2021 to 2030.
- 3.2 Under Article 4.3 of the Paris Agreement, each Party's successive nationally determined contribution (NDC) needs to represent a progression beyond the Party's current nationally determined contribution and reflect its **highest possible ambition**, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances (emphasis added).
- 3.3 Addressing the existential threat of global climate change requires international cooperation of the highest order, through the legally binding Paris Agreement. We see Aotearoa's next Nationally Determined Contribution (NDC2) as our declaration to the world of our recognition of that reality, and, in justice, taking responsibility for our disproportionate contribution of emissions to the global atmosphere.
- 3.4 Indeed, Aotearoa has the dubious distinction of being the world's highest per capita cumulative CO2 emitter, when considering fossil fuel emissions plus deforestation.⁴
- 3.5 The Climate Change Commission report on the potential domestic contribution to NDC2 has modelled pathways that demonstrate domestic emissions reductions are technically and economically feasible up to a level where they alone could achieve up to a 69% net emissions reduction on gross 2005 emissions (High Technology and High Systems Change scenario). The CCC report (p. 31) is helpful in identifying the key actions by sector. However, achieving these pathways requires confrontation with the structural limitations

³ T.M. Lenton et al. 2023. [Quantifying the human cost of global warming](#).

⁴ S. Evans 2021. [Analysis: Which countries are historically responsible for climate change?](#)

of New Zealand's current policy framework, one that has remained largely unchanged in its core design since the introduction of the NZ ETS in 2008.⁵

- 3.6 Given the marginal cost of abatement is lower in other countries, we support Aotearoa fostering a 'climate cooperation' mindset i.e. funding offshore mitigation to boost our global climate contribution beyond what is possible at home, while maintaining ambitious domestic mitigation, benefiting lower-income countries, and serving both national and global interests.⁶
- 3.7 We refer for consideration by the Government when preparing NDC2 a recent study bringing the principled framework of international environmental law into the determination of what is fair share towards the Paris Agreement goal to limit global temperature rise to 'well below 2°C' and '1.5°C'.⁷ It finds that states with high historic responsibility, high GDP per capita, etc. end up with a Paris compatible emission level in 2030 that is net-negative. It cites G20 countries such as Germany, France, UK, USA and Japan. Given Aotearoa's developed country status and high historical emissions, arguably our Paris compatible emission level in 2030 should also be net negative (i.e. greater than 100%).
- 3.8 We note the Climate Change Commission's recent recommendation that the 2050 target be amended to require net emissions of all greenhouse gases other than biogenic methane to reach at least net negative 20 MtCO₂e by 2050. NDC2 needs to be commensurate with pathways towards this.
- 3.9 The UK recently came through with a (real) ambitious commitment to reduce greenhouse gas emissions by 81% by 2035, relative to 1990 (a much tougher baseline than Aotearoa's 2005 gross emissions baseline).
- 3.10 We see two other matters to consider in determining our highest possible ambition.
- (a) Aotearoa's future climate is not actually of our choosing. Rather, the impacts of greenhouse gas emissions are global, but emissions decisions are local.⁸ Therefore, our principal leverage to mitigate our future climate change risks (think Nelson atmospheric river, Auckland floods, Cyclone Gabrielle and its estimated total economic damage of between \$9 billion and \$14.5 billion) is to foster the goodwill and climate action of humanity across the globe by the

⁵ K. Green 2024. [Domestic action towards New Zealand's second NDC \(2031-2035\)](#)

⁶ C. Leining et al. 2024. [Think globally, act cooperatively: progressing offshore mitigation for Aotearoa New Zealand](#)

⁷ L. Rajamani et al. 2021. [National 'fair shares' in reducing greenhouse gas emissions within the principled framework of international environmental law](#)

⁸ G. See 2024. [The social cost of carbon is now US\\$225 per tonne – what this means for Asia.](#)

ambition we show to reduce our emissions — most visibly expressed in our NDC2.

(b) We fool ourselves to think our isolation makes us immune to other consequences of global climate change. For example, in the words of Atiq Rahman, executive director of the Bangladesh Center for Advanced Studies and the nation's leading climate scientist: 'It's a matter of global justice ... these [climate] migrants should have the right to move to the countries from which all these heat-trapping gases are coming. Millions should be able to go to the [developed countries]'

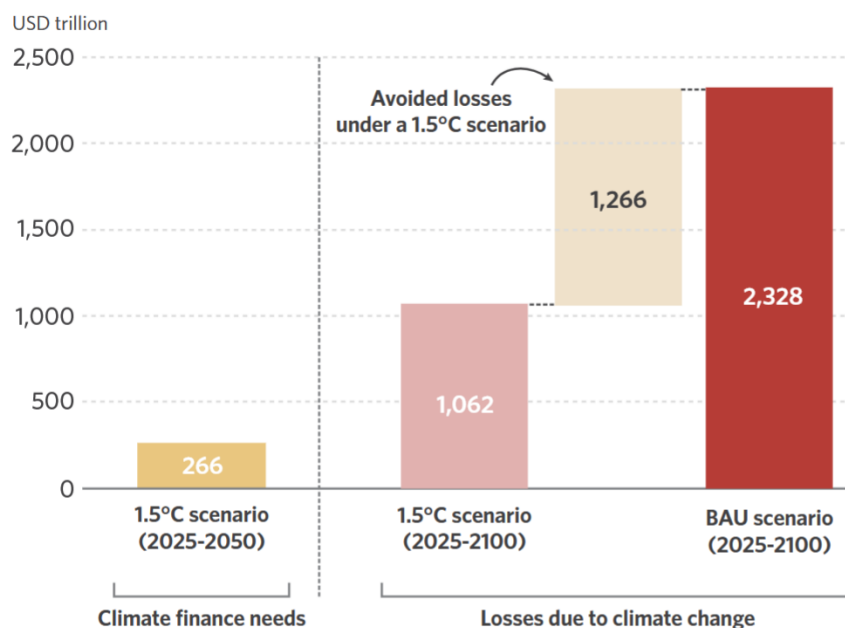
- 3.11 We consider the starting point for considering our highest possible of ambition to be expressed in Aotearoa's NDC2 should be 80%. This would comprise a mix of domestic action (69% based on the Climate Change Commission's High Technology and High Systems Change scenario) and the balance through international cooperation⁹.**

4. Cost of climate inaction vs. cost of climate action

- 4.1 In a cost-of-living crisis for many (but not all), in our view it behoves a responsible Government to frame its financial management and its public discourse on the NDC2 to clearly identify the social and economic costs of **climate inaction** alongside the costs of **climate action**.
- 4.2 Estimates of economic impacts of climate mitigation should account for impacts from climate change itself, and associated economic benefits of avoided impacts (e.g. economic losses through climate damages and risks), and social losses in human health and well-being, loss of biodiversity and nature, conflict and migration and global and local inequalities. Our economics needs to tell us the cost of future damages, to help us avoid inflicting them on future generations and our mokopuna.
- 4.3 Globally, aggregated over the period 2025-2100, economic losses due to climate change under a 1.5°C scenario have been estimated at USD 1062 trillion; and at USD 2328 trillion under a business as usual scenario (see Figure)¹⁰. **Avoided losses under the 1.5°C scenario amount to USD 1266 trillion.** These figures are likely to be a dramatic underestimate as they do not capture capital losses caused by stranded assets, losses to nature and biodiversity, or those from increased conflict and human migration that cannot yet be reasonably costed.

⁹ Because of its gross: net framing and 2005 baseline, this is well short of the UK's 81% (on a 1990 baseline) declaration.

¹⁰ B. Buchner et al. 2024. [Global landscape of climate finance 2023](#); World Meteorological Organization 2024. [State of the global climate 2023](#).

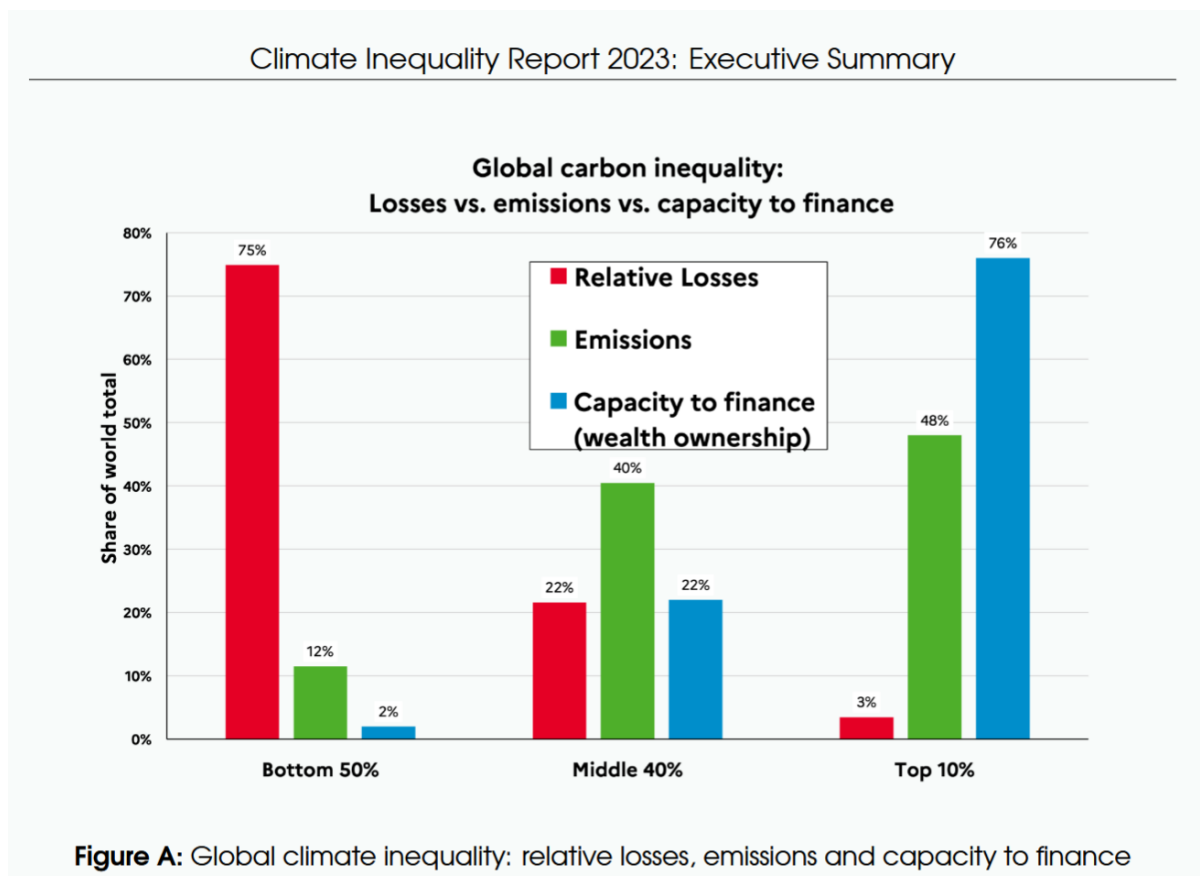
Figure ES4: Cumulative climate finance needs vs. losses under 1.5°C and BAU scenarios

Source: CPI analysis and NGFS (2022).

- 4.4 In the USA, the EPA has recently estimated the Social Cost of Greenhouse Gases at USD 120, USD 190 and USD 340 using discount rates of 2.5%, 2.0% and 1.5%, respectively. The SC-GHG is the monetary value of the net harm to society from emitting a metric ton of that GHG into the atmosphere in a given year. In principle, the SC-GHG is a comprehensive metric that includes the value of all future climate change impacts (both negative and positive), including changes in net agricultural productivity, human health effects, property damage from increased flood risk, changes in the frequency and severity of natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. The SC-GHG, therefore, also reflects the societal net benefit of reducing emissions of the GHG by a metric ton. The SC-GHG is the theoretically appropriate value to use when conducting benefit-cost analyses of policies that affect GHG emissions¹¹.
- 4.5 Such data regrettably does not seem to be available for Aotearoa. However, the Climate Change Commission report cites ‘selected co-benefits and negative impacts where evidence or modelling is available’. For example, it estimates additional benefits from reduced air pollution over the 2031–2035 period (five-year total) of \$2.3 billion (draft LTLS), \$9.3 billion (draft EB4 demonstration path) or \$12.1 billion (draft HTHS). Such avoided costs in the health system could go a long way towards covering the costs of an ambitious NDC2.

¹¹ US EPA 2024. [Report on the social cost of greenhouse gases: estimates incorporating recent scientific advances](#).

- 4.6 Funding of climate action should be targeted to the highest emitters, for example by wealth, capital gains and corporate taxes. These have benefitted most from free use of the atmosphere as fossil fuel emissions waste dump, and have the greatest capacity to finance climate action, as shown below.¹²



5. Other considerations

- 5.1 We endorse the Climate Change Commission's recognition that a key element for Aotearoa New Zealand to reduce emissions is engagement with iwi/Māori to continue climate leadership. The Government for example needs to recognise and engage with Māori over the consequences of the higher Māori share of employment in emissions-intensive industries and that Māori employees have historically fared poorly in transitions.
- 5.2 We note the Paris Agreement provisions of the Free Trade Agreement between the European Union and New Zealand include that 'each Party shall effectively implement the UNFCCC and the Paris Agreement, including commitments with regard to nationally determined contributions'.

¹² L. Chancel et al. 2023. [Climate inequality report 2023](#).

- 5.3 To indicate ‘progression’, as required by the Article 4(3) of the Paris Agreement, we support measuring the NDC2 target with the ‘point year’ approach following on from NDC1. ¹³
- 5.4 Aotearoa’s share of international aviation and shipping (including the fishing industry) should be included in the national carbon accounting framework and NDC2.
- 5.5 We support inclusion of blue carbon in the NDC2 framework, taking care to include the CO2 generated by the fishing industry within NZ’s economic area of the South Pacific. ¹⁴
- 5.6 Any purchases through the global cooperation facilities of the Paris Agreement established at COP29 must be backed up by rigorous monitoring over decadal timeframes, and contingencies allowed for loss of credits (e.g. due to wildfires, storms etc) that will surely occur into the long-term as global temperatures increase.
- 5.7 We offer for the Government’s scrutiny in preparing NDC2 (and finalising the second emissions reduction plan) the principle recently articulated that ‘credible neutralization claims using Carbon Dioxide Removal in a net zero framework require balancing emissions with removals of similar atmospheric residence time and storage reservoir, e.g. geological or biogenic. ¹⁵ Relying on exotic afforestation without providing for risks of loss is incompatible with Article 4(1) of the Paris Agreement: achiev[ing] a balance by anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century.

¹³ C. Hood 2024. [Explainer: Climate Change Commission's NDC2 advice](#)

¹⁴ T.B. Atwood et al. 2023. [Atmospheric CO2 emissions and ocean acidification from bottom-trawling.](#)

¹⁵ C. Brunner et al. 2024. [Durability of carbon dioxide removal is critical for Paris climate goals.](#)