



26 March 2021

The Climate Change Commission
Level 21, 1 Willis Street
Wellington 6011
PO Box 24448

Re: Climate Change Commission Advice to Government: Public Consultation

Thank you for the opportunity to submit on the Climate Change Commissions' (CCC) draft advice to Government. Trust Tairāwhiti is pleased to be able to make the attached contribution to the consideration of the advice. The Trust, in its capacity as the regional economic development agency, has consulted with the community for input on this submission but note the compressed timeframes have limited the engagement time available for providing this feedback.

Our submission advises that regions and smaller entities can more rapidly trial innovations and can be innovation test beds for climate solutions, which can feed into national policy. Partnerships between our local agencies and national government have proved successful in intervening in provincial challenges and this represents an opportunity to collaborate further.

The Trust has also commissioned a report of behalf of Te Tairāwhiti seeking to better understand the regional impacts of permanent carbon forestry from an economic, social and environmental perspective. We are concerned as to the implications, particularly regarding our agriculture and production forestry sectors which are key contributors to the regional economy. While this report has not yet been received, we anticipate that this will give rise to an important regional kōrero as to the effects on Te Tairāwhiti.

For any further details on our submission please contact: harley@trusstairawhiti.nz

Regards

Gavin Murphy
Chief Executive



Trust Tairāwhiti Climate Change Commission Draft Advice

Introduction:

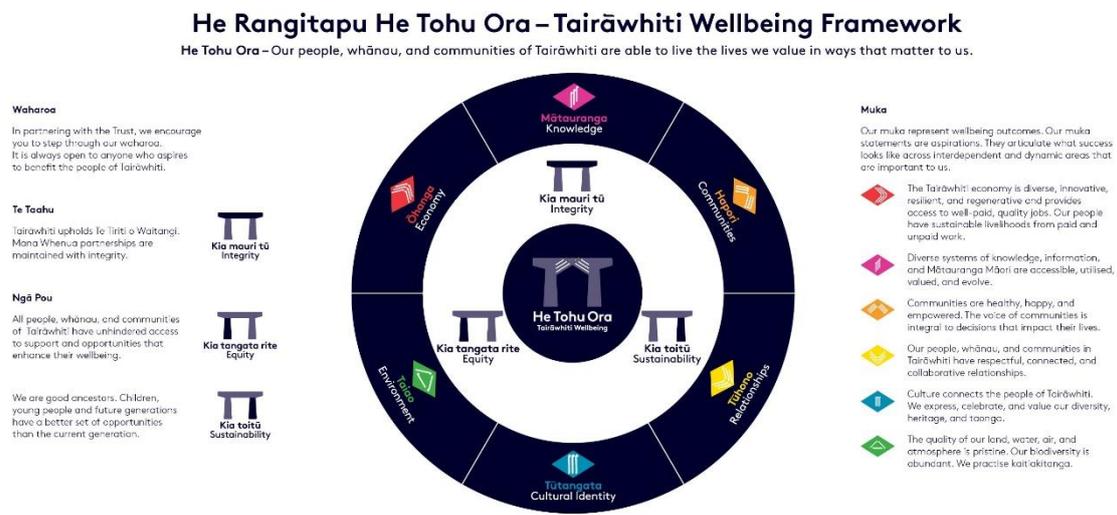
Trust Tairāwhiti is the regional development trust for Te Tairāwhiti. The Trust invests in the wellbeing of the region’s people, the success of its businesses and the future of the region. Since 1993, the Trust (formerly known as Eastland Community Trust) has invested \$60M into Tairāwhiti to help grow our regional economy and support the wellbeing of our communities. The Trust is the sole beneficiary of Eastland Group, whose operations include Eastland Port, Gisborne Airport and Eastland Network – the electricity network for Gisborne, Wairoa and the East Coast – as well as Eastland Generation which provides electricity from hydro, diesel and geothermal plants.

Trust Tairāwhiti provides the region’s Economic Development Agency functions (EDA) and also provides the region’s Regional Tourism Organisation (RTO). The Trust vision is for:

Our people, whanau, and communities of Tairāwhiti are able to live the lives that matter to us. Together we will transform Tairāwhiti into a place of:

- **Te Mana – Shared Pride; where culture connects, relationships empower and nature thrives.**
- **Te Ihi – Shared Prosperity; where people flourish, businesses grow.**
- **Te Wehi – Shared Opportunity; where children dream, communities unite and futures inspire.**

All of the Trust’s decision-making and funding decisions are guided/informed by He Rangitapu He Tohu Ora – the Tairāwhiti Wellbeing Framework.



The Trust delivers its strategic activities in three ways:

- Enabling others through grant funding
- Investing capital including via Eastland Group
- Delivering targeted operations

Climate Leadership is identified as a key priority in the Trust's strategic plan. The Trust is showing leadership:

- As a joint signatory to the Climate Leaders Coalition with Eastland Group – both the Trust and Eastland are measuring our emissions, we've set science-based targets aligned with 1.5 degrees of warming and we're working towards meeting those targets.
- By building climate considerations into the Trust's decision making – including the projects and organisations that the Trust funds in the region.
- Through effective collaboration with regional partners – including leading on the development of an initial Just Transition Plan for the Tairāwhiti with Gisborne District Council; supporting enhanced social and environmental procurement practices across the region; and providing a sustainable business programme of events for Tairāwhiti businesses.
- Trust Tairāwhiti is also committed to the region's climate leadership aspirations in the region's COVID-19 Response and Recovery Plan: Rau Tipu Rau Ora and the Tairāwhiti Economic Action Plan's commitment to transitioning Tairāwhiti to a circular and low emissions economy.
- Trust Tairāwhiti also has a history of supporting and promoting local wood processing in the region – the Trust sees local wood processing and the adoption of 'wood first' procurement approaches as beneficial not only from a purely economic perspective but also for its GHG emissions reduction benefits.

Trust Tairāwhiti acknowledges the submissions by Gisborne District Council and Eastland Group – key agencies in the region – as well as the Climate Leaders Coalition submission.

Key areas of Trust Tairāwhiti response to the budgets

We have centred our response on the following principles covering the major overarching challenges that the draft advice poses.

There are some risks to the region in relation to the draft pathway in CCC's advice that need to be managed by government through policy settings and other levers. However, the risks to the region if New Zealand (and global) emissions are not reduced in line with limiting warming to 1.5°C are far greater. The proposed budgets and pathways do not align with global 1.5°C pathways. Our position is that the proposed budgets must thus be revised to align with global 1.5°C pathways. We also call for further detail from the CCC on how the regional risks specific to Tairāwhiti of the current pathway could be managed.

Proposed path is not ambitious enough

Trust Tairāwhiti calls for more ambitious emission budgets to urgently respond to climate change. This was a key area of concern that arose from community engagement undertaken to inform this submission.

It is widely understood that to have a reasonable chance of preventing irreversible climate change effects, global warming must be limited to 1.5 degrees.¹ If international efforts fail, Aotearoa can expect accelerating sea level rise, disruptions to growing seasons, destruction of native species'

¹ IPCC. (2018). *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

habitats and more frequent and significant/extreme weather events in Aotearoa. If international efforts fail, Aotearoa can expect accelerating sea level rise, disruptions to growing seasons, destruction of native species' habitats and more frequent and significant/extreme weather events in Aotearoa^{2,3,4}. The current global emissions trajectory sets the world on a path to significant overshoot, with a global gap between existing policies and unconditional commitments under the Paris Agreement of 32GtCO₂e in 2030⁵. The IPCC have modelled a series of pathways to limit warming to 1.5 degrees globally, two of which (P1 and P2) have “no or limited overshoot” of 1.5°C and limit the role of carbon capture and storage to levels that are considered economically and technically feasible. The Trust strongly recommend only P1 and P2 are considered as they have the least risk of irreversible change and avoid reliance on uncertain technological advances. 1.5°C pathways with higher overshoot increase risk of exceeding tipping points and accelerated warming. To achieve ‘no or limited overshoot’ scenario P1 and P2, the IPCC estimate a decrease of 49-50% in global CO₂e emissions is needed by 2030 in relation to 2010 emissions baseline to give a 50-66% chance of limiting warming to 1.5°C⁶. This is the basis for the commonly cited target of halving global emissions by 2030.

Trust Tairāwhiti seek further clarification from the Climate Change Commission on the proposed budgets for Aotearoa in relation to 2010 levels (rather than current use of 2018 levels) to allow for greater comparison between CCC's draft advice and the IPCC pathways. However, by comparing the proposed annual average gross emissions for the 2026-2030 and 2031-2035 periods or 67.1MtCO₂e and 58.2MtCO₂e against the 2010 gross emissions from the New Zealand Greenhouse Gas Inventory⁷ of 71.7 MtCO₂e it shows that in 2030 we will only have reduced emissions by 7-19%. We acknowledge that the pathway for some gases/emissions sources are indexed against 2010 levels in Figure 4.4 (Draft Advice pg. 78 and copied below). However, including an evaluation of total CO₂e indexed to 2010 levels within the final advice would provide transparency on Aotearoa's trajectory and the extent to which the nation is/is not in line with keeping warming to 1.5°C.

The CCC proposes that the difference between the proposed emissions budgets and suggested increase to the NDC are to be covered by offshore mitigation. In keeping with Principle 2, and given the global nature of the climate challenge, we strongly recommend that the Commissioners revise their approach – that our emissions budgets and NDC align with 1.5°C, and that we should not rely on offshore mitigation to achieve these targets.

² Climate Change Commission. (2021). Chapter 1: The science of climate change. Draft Supporting Evidence for Consultation. Retrieved from <https://www.climatecommission.govt.nz/get-involved/our-advice-and-evidence/>

³ Ministry for the Environment. (2018). Climate Change Projections for New Zealand: Atmosphere Projections Based on Simulations from the IPCC Fifth Assessment, 2nd Edition. Wellington: Ministry for the Environment.

⁴ IPCC. (2013). Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F, D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp, doi:10.1017/CBO9781107415324.

⁵ United Nations Environment Programme. (2020). *Emissions Gap Report 2020*. Nairobi. Retrieved from <https://www.unep.org/emissions-gap-report-2020>

⁶ IPCC. (2018). Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

⁷ Ministry for the Environment. (2020). New Zealand's Greenhouse Gas Inventory. Retrieved from <https://www.mfe.govt.nz/publications/climate-change/new-zealands-greenhouse-gas-inventory-1990-2018>

Figure extract from Draft Advice referred to in submission:

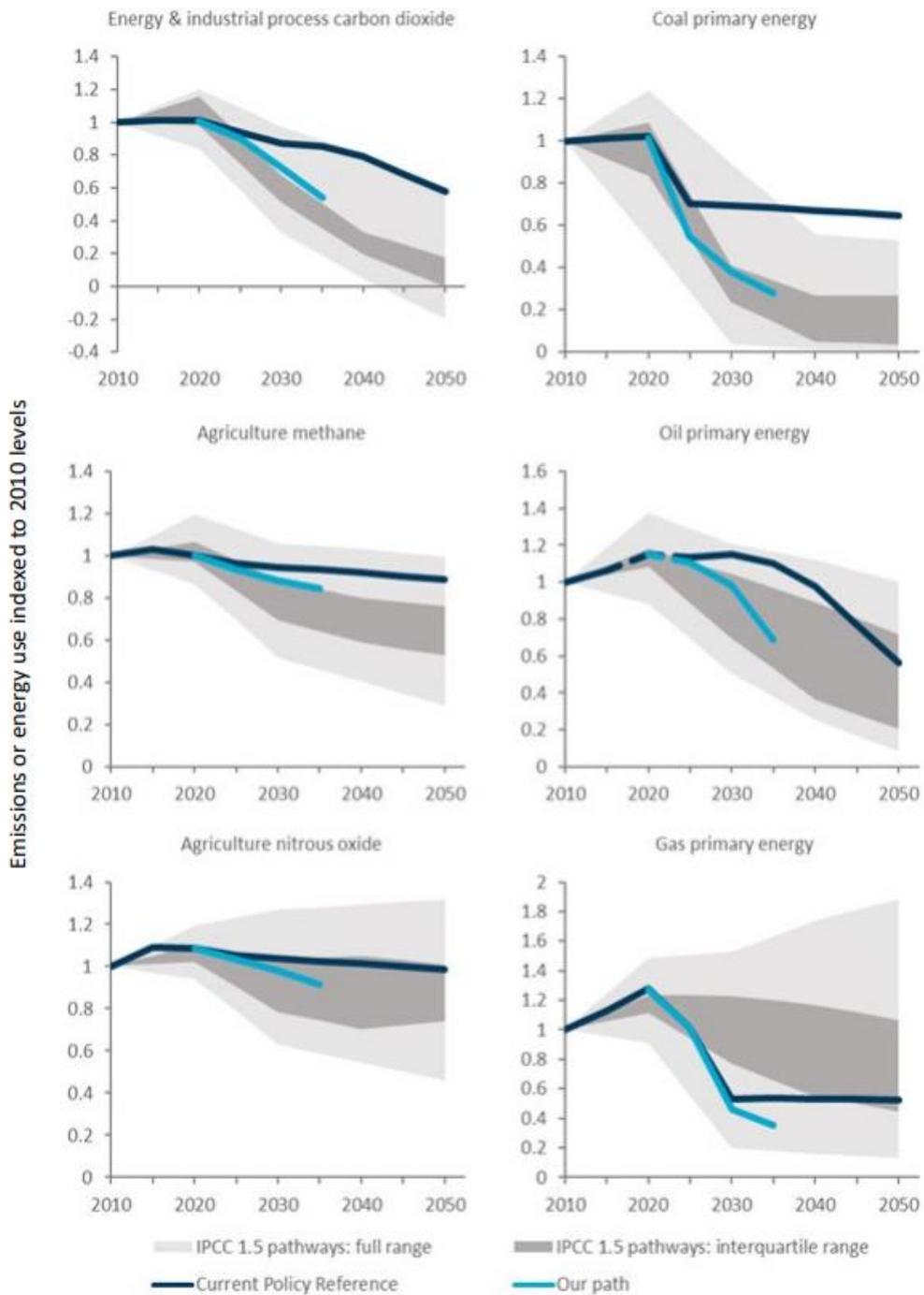


Figure 4.4: How our path to 2035 aligns with the IPCC 1.5°C pathways. In these figures, the emissions over time are indexed to the emissions in 2010.

Just Transition

It is well established that transitioning to a low-carbon future will have unevenly distributed impacts⁸ and the Climate Change Commission acknowledge this in their draft advice. The social impacts from climate change include effects on housing, livelihood stresses, food security, socioeconomic deprivation, and health inequality⁹.

The characteristics of the Tairāwhiti region put it in a unique position in terms of responding to climate change. Many Tairāwhiti whānau are unable to meet basic needs. Tairāwhiti has among the highest levels of deprivation of any region in New Zealand with 16.2% of Gisborne/Hawkes Bay children living in households where the income is less than 50% of MEDHI. The situation is compounded when housing costs are added, with deprivation levels rising to 18.3%. Māori are disproportionately affected by poverty with the areas with lower household incomes typically having higher proportions of Māori residents. Linked to this is the issue of housing affordability in Tairāwhiti, particularly for renters. Trust Tairāwhiti call for climate action that enhances social outcomes for the region rather than exacerbate existing disadvantages.

The Trust are particularly concerned on the equity of the transition required, particularly in the transport and forestry sectors, and so ask for further transparency of the regionality of social impacts from the proposed pathway.

The Trust are asking the CCC to provide tighter timescales to time-critical necessary action 1; to develop an Equitable Transitions Strategy and guidance on local transition planning guidance within 2 years and not 4.

This will be discussed further in later sections of the submission.

Regional Specificity

With the challenge of a just transition outlined above, it becomes clear that climate actions need to be tailored to the characteristics of each region, such as Tairāwhiti. We seek clarity over the role of different regions in decarbonising Aotearoa and ask for a timeline in the final advice on the development of regional pathways/budgets by the Climate Change Commission/government. This regional understanding is needed urgently. Information from Stats NZ shows that Gisborne's emission per capita (on a production basis) in 2018 was 26.6 tCO₂e/capita, which is the fifth highest region and is 602 tCO₂e/\$m of GDP, the fourth highest region in New Zealand and nearly 2.3 times higher than the average and six times higher than Auckland and Wellington¹⁰. There is concern that regions like Gisborne that have a large reliance on primary industries coupled with high levels of deprivation could either be left behind in the transition or will be required to face much of the cost of change, thereby exacerbating existing challenges.

Regional specificity can also provide opportunities for decarbonisation. We suggest government funding and support for regional innovation. This speaks to section 2.6.4 of the draft advice in regard to partnerships between local agencies and national government. Regions and smaller entities can

⁸ IPCC fifth assessment, chapter 5; <https://www.ipcc.ch/sr15/chapter/chapter-5/>

⁹ Royal Society Te Apārangi. (2017). Human Health Impacts of Climate Change for New Zealand. Retrieved from <https://www.royalsociety.org.nz/assets/documents/Report-Human-Health-Impacts-of-Climate-Change-for-New-Zealand-Oct-2017.pdf>

¹⁰ <https://www.stats.govt.nz/information-releases/greenhouse-gas-emissions-by-region-industry-and-household-year-ended-2018>

more rapidly trial innovations¹¹ and can be innovation test beds for climate solutions, which can feed into national policy. One such example of regional innovation is the work currently underway in Tairāwhiti by Toha with bonds being used as a pathway to biodiversity credits for local stations. Innovative new financial instruments that support blending pastoral agriculture with native reforestation have the ability to create new economic incentives for the region's farmers and landowners as well as reduce investment risk in agriculture assets. This highlights how regional solutions can support social, economic, environmental, and cultural wellbeing. Regional innovation empowers regions to develop solutions (such as measurement tools) in collaboration with/by tangata whenua that are suitable to local contexts. This sits well with taking a biocultural approach¹² to climate change action to centre tangata whenua in the journey.

Policy Integration

The CCC's draft advice is an overarching, cross-sector and cross- government department document. As such, it has influence right across Aotearoa's governance. It is appreciated that one of the Commission's next undertakings is providing advice regarding adaptation planning. Within this complex environment we ask the CCC to recommend further analysis on the interrelationship between the draft advice and other related policies including adaptation measures, resource management review, land transport changes, highly productive land statement, indigenous biodiversity statements, and air quality standards.

We propose that CCC make it clearer in their draft advice that the proposed budgets need to be aligned and embedded throughout other key governmental decision making and investment. There is a risk that recent Crown Infrastructure Project funding has not invested in solutions aligned to a 1.5°C pathway and in many cases may even exacerbate the emissions reduction challenge.

Specific sector responses

Land use /afforestation / ETS (big issue 4)

Policies relating to the ETS, land use, afforestation and agriculture have a significant impact on the prosperity of the Tairāwhiti region with Sheep, Beef Cattle and Grain Farming as the single largest sector of employment¹³. As such, we have broken down this area of the draft advice into the below topics but are aware that they are inherently interlinked. We value taking a holistic approach to land use that goes beyond the sectors to also analyse considerations such as mitigation, soil protection and wetland restoration.

ETS

- Support amendments which encourage greater use of native trees on marginal land and discourages/prevents use of invasive exotic species as permanent carbon sinks.
- There is little commentary in the advice on the implications of carbon pricing on existing and future production forestry. We recommend that the Commission undertake further

¹¹ Ostrom (2016), A Polycentric Approach for Coping with Climate Change, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1494833

¹² Lyver, P., et al. (2018). Building biocultural approaches into Aotearoa – New Zealand's conservation future. *Journal of the Royal Society of New Zealand* 49(3), 394-411. DOI: 10.1080/03036758.2018.1539405

¹³ MBIE regional fact sheet – important industries <https://www.mbie.govt.nz/dmsdocument/11445-regional-factsheet-gisborne-pdf>

investigation that considers the impacts the substitution of permanent carbon farming will have on production forestry and the resulting implications on productivity and employment on a regional basis. Please note that Trust Tairāwhiti has commissioned research into the economic, social and impacts of permanent carbon farming in Tairāwhiti¹⁴. A copy of this research will be shared with the Climate Change Commission, anticipated to be early-mid April and the research will form the basis of community discussions.

- Amend time-critical necessary action 7(b) to provide clearer and more immediate timescales to reflect the immediacy and urgency it requires.
- Support the Commission's stance on decoupling marginal abatement cost for emitters from the carbon price for sequestration.

Land use

- Recommend financial incentives for regenerative land management, for example improved returns from native forestation on sheep & beef farms through biodiversity credits¹⁵.
- Prioritise commercial opportunities for indigenous plants as high value industries.
- Disincentivise exotic forestry as permanent forest.
- We recommend that the Commission takes a strong stance on obligating exotic carbon only forest owners to remediate land and to mitigate resulting external costs on wider community of weed and pest control. This could involve excluding invasive exotic trees from permanent carbon sinks entirely. 1.8million ha of NZ is currently considered 'under threat' by wilding pine invasion.¹⁶ Compulsion to remediate could be ensured via preliminary bonds or deferred payments for credits. We ask the Commission to consider the cost should such measures not be implemented.
- The Trust has concerns that the 2019 Te Uru Rākau 'PWC report'¹⁷ on the economic impacts of forestry excludes many sectors (related to sheep and beef farming) and uses industry averages for economic returns per hectare. There are concerns that this could skew data in favour of profitable forests which generate high economic returns and so we ask the Commission to analyse how this data is used.
- There is insufficient data for policy makers to use current rates of afforestation to set the first ten years of the carbon budget as current planting rates do not always capture that which occurs on private and iwi land. As such, we ask the Commission to take this into account in setting final targets.

Economic development

- As mentioned above, there is concern that under the ETS, the local economy could be negatively impacted by areas going to permanent (exotic) forests due to carbon credits. The resultant aging exotic forests face issues with breakage effects and are no longer able to be milled. We ask the Commission to take into account the possible loss of jobs and income this could bring about for the region in their just transition approach.

¹⁴ The commissioning of this research has also been endorsed by the region's Tairāwhiti Economic Action Plan Steering Group.

¹⁵ <https://www.calmthefarm.nz/>

¹⁶ Department of Conservation <https://www.doc.govt.nz/nature/pests-and-threats/weeds/common-weeds/wilding-conifers/>

¹⁷ <https://www.nzfoa.org.nz/resources/file-libraries-resources/discussion-papers/848-economic-impacts-of-forestry-pwc-report/file>

- We are concerned that jobs within the pastoral sector provide challenges in terms of transferability – for example, the skillsets of shepherds and shearers. The pastoral sector is expected to lose almost three times as many jobs as the, often referenced, energy sector. Over three thousand job losses are stated in the body of the CCC advice, p.94. This will disproportionately impact Tairāwhiti as Gisborne/Wairoa holds approx. 5% of NZ's sheep and beef hill country and a significantly higher portion of NZ's sheep and beef hard hill country.¹⁸We seek recommendations on an approach to a well-planned transition to equitably consider these job losses.
- We acknowledge that policies on forestry are to be published in 2022. We request that the Commission in its advice seeks to address the implication of land demand particularly after policies have been proposed but not yet implemented (2022-2024) so as to prevent speculative activities.

Regional specificity

- Characteristics of the region mean climate change actions could further disadvantage Tairāwhiti; particularly if farmers are placed in a net emissions deficit. We note these characteristics to inform the Climate Change Commission/central government and local governments' work on assessing regional distribution of effects across economic, social, and environmental outcomes. This is particularly relevant for afforestation and the retirement of pastoral land (and linked job losses¹⁹).
- The regional topography with pastoral land on medium-steep sites reduces productivity and may add challenges to meeting targets. The land is highly erosion prone with existing exotic pine forests which cause environmental damage. Northland Regional Council²⁰ research shows the potential in carbon units allowing landowners to plant native trees on steeper slopes that would otherwise give poor returns as pastoral land.
- The budgets rely on efficiency improvements continuing along previous trends. Given the increasing difficulty of implementing efficiency improvements to land use practices (with the easy fixes already in place) we ask the Commission to consider the feasibility of this assumption in target modelling.

Circular economy / building energy performance / sustainable construction

Circular economy

The draft advice is unambitious in the waste sector. The draft advice highlights the economic benefits of transitioning to a circular economy and notes the evidence base is for emissions reduction quantification. The draft advice should fully acknowledge the relationship between plastics and the damaging extraction of fossil fuels. This should inform better choices in Aotearoa as a country rich in natural and renewable fibres and the solution these could offer in terms of carbon reduction and employment.

¹⁸ Tairāwhiti collectively has just under 500,000 hectare of hill country (figures from MAF's 2011 sheep and monitoring programme) of 10 million hectares total sheep and beef land including tussocks (Beef and Lamb), with 80% of our region having land classes of 6&7 (Manaaki Whenua, LUCC of the Gisborne East Coast region).

¹⁹ Te Uru Rākau. (2020). Economic Impact of Forestry in New Zealand. PWC. Retrieved from <https://www.nzfoa.org.nz/resources/file-libraries-resources/discussion-papers/848-economic-impacts-of-forestry-pwc-report/file>

²⁰ Satchell, D. (2021). Land Use Options and Economic returns for Marginal Hill Country in Northland. Northland Regional Council, February 2021.

The Ministry for the Environment already has a voluntary product stewardship scheme in place²¹, with a focus on six priority products²². Expanding this scheme to other key products and making this a regulated / enforced scheme would effectively create a producer pays approach and could fast track the transition to a circular economy in Aotearoa.

Trust Tairāwhiti supports the Commission's advice in using forest debris for biofuel production, given its potential as a feasible low emissions alternative to ordinary coal. The Commission recognises that availability is likely to vary across the country due to regional mismatches in supply and demand of biomass, and the cost of transporting biomass (p. 68)²³Logistically we consider that it will take some time to develop the technology to support biofuel production or plastic substitution products referred to above. Currently, much of wood pulp is being dumped in situ, thereby wasting a potentially valuable resource. Given the huge supply potential in Tairāwhiti and the effects this can have on regional development we ask the Commission to provide further advice on how government can support these areas in making the most of this product and a timeline for when this could realistically begin to transform the sector. This is consistent with the Climate Leaders Coalition submission which recommends the CCC's advice include greater reference emphasis on the importance of localised biofuel production.

We also suggest a recommendation in the draft advice for government to undertake analysis on the carbon benefits of a circular economy and use this information to support more ambitious carbon budgets.

Building energy performance

The Trust supports the Climate Leaders Coalition submission on building energy performance:

“Building energy efficiency in buildings, particularly new builds, is an area that we believe that New Zealand needs to go further and faster on. The Commission currently states that new buildings should aim to be 35 per cent more energy efficient by 2035. In our opinion, this target is neither ambitious nor consistent with current domestic policies or the international call for building energy efficiency standards, for example:

- The Building for Climate Change programme is setting out a likely target of a 30 per cent reduction by 2024.
- Thousands of homes and hundreds of buildings are already being built to a standard reflecting a 35 per cent more energy efficiency using NZGBC tools right now.
- The United Nations has called for near zero energy, zero emissions buildings to become the construction standard globally within the next decade.

Therefore, we recommend that the Commission amends their energy efficiency for new builds target to 30 per cent more energy efficient by 2024, 60 per cent for energy efficient by 2027, and near zero energy by 2030.

²¹ <https://www.mfe.govt.nz/waste/product-stewardship-responsible-product-management/about-product-stewardship>

²² <https://www.mfe.govt.nz/waste/product-stewardship-responsible-product-management/applying-accreditation-of-product>

²³ Tairāwhiti Biomass to Energy, 2019, Prepared for Eastland Community Trust by SCION.

Sustainable Construction

Trust Tairāwhiti supports the Climate Leaders Coalition submission recommendation that the Commission include specific recommendations in relation to embodied emissions:

“That the Commission considers the ability to change the carbon conversation from a production perspective to a consumption one. Setting targets for embodied emissions within, as a starting point, buildings will drive differing consumption behaviours.

We further recommend that the Commission breaks down industrial heat so that embodied carbon is visible. It should also include a goal of a 40 per cent reduction in embodied carbon of buildings by 2030, therefore, significantly driving down industrial heat. This aligns with the World Green Building Council’s target, created in collaboration with international entities.”

Trust Tairāwhiti supports the Climate Leaders Coalition reasoning for including specific embodied emissions recommendations at this stage:

- Where buildings demand lower carbon concrete, steel, aluminium, and aggregate, it will help change the manufacture and sourcing of products and reduce industrial heat emissions.
- This will send an important signal to building materials manufacturers.
- The Building for Climate Change programme²⁴ (MBIE’s programme to amend the building code) is discussing measuring and reducing embodied carbon and it would be useful to align with this thinking.
- The 2019 Thinkstep report²⁵, which showed that even without substitution of materials (e.g., wood instead of concrete or steel) the emissions from materials currently used, can be reduced substantially (19 percent by 2025 in buildings). Including substitution and having another five years, clearly enables far further reductions.

A recent Building Carbon Calculator prepared by Naylor Love²⁶ is helping to highlight the significant upfront carbon emission reductions when steel and concrete and steel alternatives are adopted.

Trust Tairāwhiti is committed to supporting a number of “wood first” initiatives including:

- Advocating for the use of locally manufactured timber framing in residential and commercial construction.
- Advocating for the use of locally manufactured fibreglass substitutes for steel reinforcing rods in commercial concrete applications
- Supporting investment in tropical hardwood substitution by modifying radiata lumber for decking and cladding applications.
- Building ‘wood first’ and wider sustainable construction priorities into the region’s social and environmental procurements best practice.

²⁴ <https://www.mbie.govt.nz/building-and-energy/building/building-for-climate-change/>

²⁵ <https://www.nzgbc.org.nz/zerocarbon/roadmap>

²⁶ <https://www.naylorlove.co.nz/carbon/?fbclid=IwAR1c61mT1BR9qyH8RRst2vEQaC12AdzJhuefeUck1KnnIMO UNktL1xKF-dg>

The Trust sees these initiatives as opportunities to build economic resilience in the region – and they are an integral element to the region’s transition to a more circular and inclusive economy.

Transport

The decarbonisation of the transport sector should be seen as an opportunity to unlock numerous environmental co-benefits. Historically, government investment into the region has been playing catch-up on much needed improvements²⁷. This is a chance to proactively advance social and environmental outcomes, taking into account the impact on transport for not only residents and business but tourists as well.

Given the rural nature of Tairāwhiti, it faces challenges in decarbonising transport for both people and freight. The region is remote from many of its markets and so relies exclusively on trucks for freight needs. Trust Tairāwhiti are interested in the CCC further exploring the implications of electrifying trucks for remote regions and support for establishment of domestic coastal shipping to export ports and the acceleration of ‘greening’ coastal shipping.

We support the CCC’s analysis of the potential for inequities in accessing electric vehicles. The Commission is aware that the upfront cost of electric vehicles affects the ability of lower income and rental households to decarbonise and that this challenge is particularly relevant to Māori households who are disproportionately represented among those with low incomes. Furthermore, the dominant sectors within Tairāwhiti rely on utes, farm bikes and quad bikes. As such, we would like more detail on the type of proactive, targeted support being suggested to help rural areas bring down the costs of transitioning.

With existing poor transport infrastructure there is concern that the transport recommendations made by the CCC will be directed towards major cities and not support other regions. Alongside the support for electric vehicle uptake, we see a need for greater priority on increasing active transport infrastructure and public transport beyond major urban centres to reduce reliance on light vehicles. As part of this, we do not want a direct shift one-to-one to electric vehicles from internal combustion engine vehicles, but a greater mode shift towards public transport and active modes, alongside exploring opportunities for shared-economy type transport options. The Government’s recent announcement for all Government departments to be net zero by 2025 presents a significant opportunity to explore shared service fleet options that non-government agencies could also sign up to. The Innovating Streets pilots highlighting potential for accelerating action in the region and the potential for e-bikes to provide a more long-distance active transport option should not be overlooked.

We suggest that the CCC draft also recommends:

- Time critical necessary action 2 d is to provide a charging infrastructure plan (this should also include other fuel infrastructure for heavy trucks), it is suggested that this is strengthened to include the need to develop this plan in a way that supports interregional travel to ensure access to regions like Tairāwhiti for whānau, commerce and tourism.
- That the transition to EV doesn’t leave those behind, who do not have the financial means to overcome the high capital and maintenance (e.g., battery upgrade) costs of EVs, which means they cannot benefit from the lower costs of operating an EV. The Ministry of Health’s Healthy Homes Initiative is an example where support has been given to at risk and low-

²⁷ <https://www.beehive.govt.nz/release/pgf-accelerates-road-upgrades-tair%C4%81whiti>

income groups to ensure the benefits of improved insulation etc. were shared more equitably across communities²⁸.

Emissions leakage

We support the Commission's stance that exporting emissions rather than reducing them is unacceptable and acknowledge that the Commission are to release advice on agricultural emissions leakage in 2022. Within this context we want to note our concerns particularly for food production and wood processing. Wood mills in Aotearoa have less emissions associated with wood processing compared to exporting unprocessed logs (due to processing energy, transportation etc.) yet are closing down²⁹.

Similarly, reducing the efficient production of foods in Aotearoa shifts the production to other countries which likely have more carbon intensive practices. It also raises concerns with protecting food-producing, fertile lands³⁰.

Behaviour change

Behaviour change as an opportunity is underrepresented in the draft advice. Studies have shown the need for behaviour change to support policy and legislative changes to deliver greater GHG reduction and can be effective to change home energy usage and transport habits^{31,32,33,34}.

There is also a risk that individuals and business (operating outside of the main sectors named in the draft advice) will not see the part they have to play to support greater greenhouse gas reduction. This is where the potential for behaviour change is important.

To be able to support the development of more ambitious emission budgets, it is suggested further research on what behaviour change can contribute and in the first instance, through story telling being clear in the draft advice on what this entails for individuals and families.

Summary

We welcome the opportunity to respond to the Climate Change Commission's draft advice and call for greater transparency on the emission budgets and alignment with a 1.5°C pathway. As part of this, we see possibilities for further emission reductions. This submission suggests opportunities relating to biodiversity offsets, circular economy, behaviour change and transport mode-shifts. The current pathway creates a number of risks for Tairāwhiti. The region's reliance on primary industries

²⁸ Ministry of Health, Healthy Homes Initiative, retrieved from <https://www.health.govt.nz/our-work/preventative-health-wellness/healthy-homes-initiative>

²⁹ <https://trusttairawhiti.nz/news/greenhouse-gas-emissions-and-wood-processing-2/>

³⁰ <https://www.dairynz.co.nz/environment/climate-change/dairy-sector-action/nz-dairy-sectors-carbon-footprint> <https://beeflambnz.com/news-views/ipcc-report-agriculture-supports-nzs-sheep-and-beef-farm>

³¹ Boardman B, Darby S, Killip G, Hinnells M, Jardine C, Palmer J, Sinden G. (2005). *40% House*. Environmental Change Institute, Oxford, UK.

³² Fischer C. (2008). Feedback on household electricity consumption: a tool for saving energy? *Energy Effic.* 1(1), 79–104

³³ RAND Europe. (2012). *What Works in Changing Energy-Using Behaviours in the Home? A Rapid Evidence Assessment*. Department of Energy and Climate Change, London, UK.

³⁴ Möser G, Bamberg S. (2008). The effectiveness of soft transport policy measures: a critical assessment and meta-analysis of empirical evidence. *J. Environ. Psychol.* 28(1), 10–26.

alongside high levels of deprivation raise concerns that Tairāwhiti could be left behind or face a disproportional cost of change. As such, we ask for further regional specificity to ensure a just transition. The Trust want to note their gratitude for the time that the Commission has put towards listening to provincial communities and formulating recommendations. We welcome the CCC's change in approach to address emissions at source and acknowledge that we can't plant our way to net zero without placing enormous burden on subsequent generations.

To summarise the position of Trust Tairāwhiti:

- We agree with principle 2 to that Aotearoa's NDC should be achieved domestically and therefore the emissions budgets and NDC should align with 1.5degrees.
- We agree with the Commission's view that Aotearoa can't plant our way out of climate change, however we require greater detail surrounding the specificity and regionalisation of the ETS settings, so as to not penalise regions like Tairāwhiti; each region will need a tailored approach.
- We agree with CCC's need for regional analysis and decarbonisation plans, we seek the commission to advise an immediate start to this essential work to reflect the economic, social and cultural needs of Tairāwhiti.