

Climate Change Commission 2023 Draft Advice to inform the strategic direction of the Government's second emissions reduction plan

Climate Justice Taranaki submission, 20 June 2023

1. Climate Justice Taranaki Inc. Soc. (CJT)¹ is a community group dedicated to environmental sustainability and social justice. This includes issues of inter-generational equity, notably in relation to climate change, which will increasingly impact present and future generations' inalienable rights to safe water, food and shelter, crucial to sustaining livelihoods and quality of life. Composed of a broad range of people with varied expertise and life experiences, CJT has engaged respectfully with government on numerous occasions. We welcome the opportunity to comment on the Climate Change Commission's 2023 draft advice to the government.

Chapter 3: A path to net zero

2. We support the advice to commit to **a specific level of gross emissions** for the second and third emissions budgets and to communicate indicative levels of gross emissions out to 2050 and beyond to guide policy development (Recommendations 1 and 2). Indeed, the fixation on net emissions and reliance on offsets has been a serious flaw.
3. We disagree with the government's 2050 emissions targets as they are too little, too late. We must bring emissions down much faster. Our group calls for a carbon zero target by 2030 if we have any hope to keep warming below, sadly, now 2 degrees Celsius, as 1.5 degrees, seems impossible to avoid due to decades of inaction.

Chapter 4: Emissions pricing

4. The NZ Emissions Trading Scheme (ETS) is sorely inadequate for an equitable and just transition to mitigate and adapt to climate change.
5. We support the recommendation to *"make the emissions pricing system consistent with delivering the specific levels of gross emissions for the second and third emissions budgets, and with the 2050 net zero target by: a) implementing an amended NZ ETS that separates the incentives for gross emissions reductions from those applying to forestry", and b) "developing an approach that can provide durable incentives for net carbon dioxide removals by forests through to and beyond 2050* (Recommendation 3).
6. We share the Commission's concern and caution over expanding the ETS to avoid perverse outcomes (CCC p67).
7. We are glad that the Commission highlights the fact that *"current industrial free allocation policy is not fit for the long term or proportionate to emissions leakage risk"* (CCC p68), and the flaws in the recent amendment Bill which we submitted on². Indeed the vast over-allocation of free carbon credits has been a major impediment to high emitting industries to change, at a huge loss of government revenues much needed for climate mitigation and adaptation. A much fairer and effective way of reducing supposed carbon leakage is a Carbon Border Adjustment Mechanism³ similar to what the European Union countries have recently adopted. Such a scheme would collectively incentivise industries across borders to decarbonise and potentially reduce unnecessary import and export.

8. To be clear, we do not believe, indeed have never thought, that the continued obsession and rejigging of the ETS would deliver better outcomes⁴. We favour more stringent regulatory framework on polluting industries and progressive tax reforms and reprioritisation of funding to enable on-ground efforts that directly reduce gross emissions and foster community wellbeing and equity.

Chapter 5: Whāia ngā tapuwae

9. We support the proposed recommendations 4 and 5 and the rationale behind these. Some of our members work in iwi, hapu and pa organisations and are ahu whenua land owners, so have a fair understanding of the issues mentioned.

Chapter 6: Wellbeing through the transition

10. We fully agree with *“expanding the scope of the Equitable Transitions Strategy to include the compounding impacts of climate change and adaptation as well as mitigation”* (Recommendation 6) and making *“use of existing mechanisms to manage impacts of climate policies in the interim, rather than delaying climate action”* (Recommendation 7).
11. We note that employment opportunities for new environmentally focussed work should be open to everyone so those workers transitioning out of polluting industries should not be given special priority. With respect to Te Tiriti o Waitangi, special priority should be given to mana whenua for jobs.
12. It’s worth also noting that rural housing is often in a bad state as whanau have moved away for city jobs. Support for housing upgrades would be useful, as would support for improving rural services and public transport.
13. Given increasing risks and impacts to health and wellbeing from climate disruptions, extreme weather events and climate anxiety, support sectors including our health and education workers must get far better support from government urgently. It is truly frustrating that we have both sector workers striking at a time when health and wellbeing issues are rampant, especially amongst our youth. We cannot afford to have these essential workers leave the country to be treated better somewhere else. They should be treated well here at home.

Chapter 7: Agriculture

14. **We partly support Recommendation 8 with the enhancement of advisory services to farmers to accelerate the adoption of emissions-efficient practices and appropriate land-use diversification to reduce emissions with co-design and partnership with iwi and Māori. There is however far too much reliance on technology that is likely to only bring small reductions in greenhouse gas emissions but not tackle the industry’s enormous carbon and environmental footprint as a whole**, in particular from overstocking, processing and transport for exports and imports.
15. If we are genuinely working towards a carbon negative goal that will not only cut but draw down existing emissions, to ensure a safe and sustainable future, we must do more. Just as the draft advice states that the ETS is merely a tool and not a solution, so too is the research and development work only a means to tools and not solutions. It is already quite clear what must be done to reduce our emissions: greatly reduce herd numbers and repair soil carbon and native vegetation. The problem is that our agriculture industry was set up in a time of colonial exploitation for Europe and that old extractive mindset needs to go. Our group advocates for a transition away from dairy exports to a local, sustainable agriculture economy.

16. Looking closely at industrial agriculture in Aotearoa, it fails ethical and sustainability measures on many levels: land theft from Māori, water pollution, native habitat destruction (eg. forests, wetlands, estuaries, floodplains and alpine grasslands), soil degradation and erosion, animal cruelty, GHG emissions, poor working conditions, and destruction of rural communities following growth models and technology that push workers out and drive wages and prices down. It often feels like this country forgets that farming is private business, not some community service putting food on our tables. In general 80-95% of agricultural products are trucked, processed, packaged and shipped overseas using huge amounts of fossil fuels. Dairy powder, most commonly used in confectionary, is not even a nutritious food that humans need, yet we hold the industry up as an essential service provider to our country while offering millions in subsidies and relief whenever they get into trouble.
17. Many farmer's kids and grandkids want out of the industry and the stop-gap measure of importing low wage workers from overseas is not an ethical solution (while we do support providing meaningful and fair employment for immigrants and refugees). If farmers and their lobbyists are worried that changing their farming practices to more diversified activities with more forests will somehow reduce employment and rural communities, then they are completely ignoring the fact that this is exactly what their industrial ag practices have done to rural communities over the last two generations. Around Taranaki we have had dozens of rural schools shut down in the last two decades. Hundreds of houses sit empty until they fall down, and once thriving community halls sit dilapidated and empty most of the year. As families age, the hard decision comes for each of them as to who will get the farm and who has to leave as farm sizes support fewer and fewer people. Current rural school numbers are so bad that we can't even get daily public transport due to push back from school boards who fear that children will change to schools in New Plymouth or Te Hawera, and never come back.
18. Small scale, diversified farms that provide large local communities with fruit, vegetables, mushrooms, grains, meat, eggs, timber, rongoa, fibres and locally made items, alongside service workers to repair things, teach kids and care for the unwell, are far more sustainable and resilient economic models than the current mess we are in. This approach is also likely to be far more resilient to climate disruption than the present high input, polluting one. Acting to delay this transition is the strongly misguided, underlying level of denial of future impacts among some in the agriculture industry, as among some other sectors. This has been actively encouraged by vested interests.
19. **In short, the current and next emissions budgets are not strong enough to sufficiently reduce emissions, and recommendations assume that importing and exporting will continue into the future** even as fossil fuels become unaffordable. This rests heavily on the myth of hydrogen fuel being able to swap out the current fossil fuel uses so business can continue as usual (See the Energy section later).
20. **While we do not object to advancing the agricultural emissions pricing system, we disagree with the weight given to technological fixes (Recommendation 9).** The agricultural industry emits GHG in so many areas from on-farm biogenic methane and nitrous oxide to CO2 associated with processing and transportation offsite. It also causes far-reaching environmental degradation and human health impacts. Even riparian planting has its own problems. In Taranaki many riparian margins are under 1m wide despite the regional council calling for fences to be moved further out in line with recent stock exclusion regulations and their own rules. Plantings that have been done are often on the steep banks of dug out stream 'drains' so every time it floods, which of course is more often and severe, the plants fall in the streams along with large amounts of soil which all washes out to damage culverts and bridges and smother aquatic life and reef biota. If any carbon credits are to be allowed for these plantings, then they must be permanent, stable plantings with wide margins that are planted correctly to decrease rather than increase erosion. The multiple benefits of this approach are obvious.
21. To reiterate, we have no faith in the ETS as an effective tool to curb emissions, and would much prefer direct intervention such as reducing stock numbers, phasing out synthetic fertilisers and imported

feeds, retiring areas for ecosystem restoration or other forms of primary production that sequester rather than releases GHG. Even paying farmers to get off dairying as proposed by Dr Mike Joy could be a better option and warrants thorough consideration⁵.

Chapter 8: Built Environment

22. We agree that increasing urban densities by building upwards and with more mixed uses while reducing climate risks, is important (CCC p100). But we are disappointed that the draft advice does not consider the impacts that increasing urbanisation has on smaller communities, as people leave for the cities to live or work.
23. Aside from urban centres, **greater investment focus on small rural and semi-rural communities** would reduce adding further infrastructure, energy and service demands on cities. It would also help to bring people back to land and rekindle relationships with nature, something important to both Māori and non-Māori, and would pave the way to more successful climate and other environmental policies and initiatives. Models such as the **15- or 20-minute neighbourhoods**⁶ for rural towns and villages could foster community wellbeing and resilience (e.g. through community food gardens and emergency hubs⁷) while reducing transport emissions.
24. In terms of financing, we agree that options like 'land-value capture' could be further explored, especially when developers contribute money to improve public services and infrastructure that directly benefit residents. The World Resources Institute⁸ explained, *"along with generating public revenue, land value capture can mitigate some harmful effects of gentrification. Often as a city develops and land prices increase, lower-income residents and small or informal businesses face displacement because the cost of living and doing business becomes unaffordable."* It is a way of redistributing some of the revenue generated by higher-end developments to pay for affordable housing and social services.
25. Indeed, housing affordability affects the uptake and effectiveness of any new integrated urban planning. The private housing market is based on profit, is unsustainable and leads to inequity, inadequate resourcing of infrastructure and public housing. Twenty percent of our carbon footprint comes from the private building construction industry⁹.
26. It is appalling that NZ has up to 30,000 people waiting for public housing and with the recent flash floods and cyclone damage, such climate related events will only increase these demands. As a basic human right¹⁰, *"adequate housing must provide more than four walls and a roof."* To be adequate, it must meet the following criteria: security of tenure, availability of services, affordability, habitability, accessibility, location and cultural adequacy. Increasingly, climate resilient housing is becoming more critical.
27. Crucially, *"Māori should have tino rangatiratanga over their land and housing, and that the state has the obligation to redistribute wealth for this to be realised"*, Cole 2021¹¹. A co- governance run housing infrastructure able to build quality, sustainable, climate resilient and future-focused public housing that is available for all, would reduce household costs and improve health.
28. Kāinga Ora has already started a pilot scheme programme¹² in Auckland trialling different construction technologies and materials that reduce carbon and energy outputs. The proposal of a Ministry of Green Works outlined in Harris and Paul 2021¹³ is well worth exploring.
29. As the CCC pointed out, building low or near zero emissions buildings now would reduce electricity demand compared to construction of only code compliant buildings (CCC p103). We therefore recommend that the CCC advises the government to **review and upgrade the Building Code** rather than relying on voluntary efforts to build lower emissions buildings.

30. We strongly support the proposal to *“incentivise comprehensive retrofits to deliver healthy, resilient, low emissions buildings”* (CCC recommendation 11 p105) and ask that it specifically includes *“targeted support for replacing fossil gas infrastructure and appliances to households, marae and small businesses.”*
31. We also strongly support a prohibition of new installation of fossil gas in buildings and ask that it be enacted in 2026, the start of the second budget period (Recommendation 12) for climate change and human health¹⁴ reasons. We caution against the use of the clause *“where there are affordable and technically viable low emissions alternatives”* because it’d open loopholes and render the prohibition ineffective.

Chapter 9: Energy and Industry

32. We are concerned about the **very heavy push for more renewable electricity generation (REG) to meet anticipated demand from 2025 and beyond**. Any form of energy generation including RE has adverse environmental and social impacts, locally and overseas. We cannot ignore these while pushing to vastly increase our REG. We need to work very strategically so that the top priorities are to ensure decarbonisation of adequate public services, household and community energy needs, and foster energy equity and resilience. Building more and larger REG capacity does not necessarily equate to these, especially when precious new RE is squandered by energy-hungry and often polluting industries and transport. This centralized, heavily industrialized approach exemplifies the same mentality that got us into this mess in the first place. It also risks continuing the deeply flawed, inequitable gentailer model¹⁵, rather than a distributed, decentralized, community-based approach that will build and foster resilience.
33. Holistic, transformative thinking and fundamental reforms of our energy and economic¹⁶ systems that respect planetary boundaries and social thresholds¹⁷ and align with degrowth^{18, 19} involving the **reduction of energy and material throughput**, are needed. As an example, CLEVER - Collaborative Low Energy Vision for the European Region²⁰ recognises the climate emergency, as well as the *“untenable disruptions to ecosystems, an unprecedented energy security crisis and mounting social inequalities.”* CLEVER uses energy demand reduction made possible through **sufficiency and efficiency** as the starting point (not ‘anticipated’ demand), then RE development, to address the complex and interlinked issues.
34. Crucially, the use of very strong language in the Commission’s draft advice, notably *“barriers related to consenting and investment certainty must be removed”* to *“ensure a fast-paced and sustained build of renewable generation and network infrastructure”*, lacks prudence (CCC p111, 114). It appears that the Ministry for Business, Innovation and Employment (MBIE) has already cherry picked from the draft advice when developing the draft national policy statements (NPS) for renewable electricity generation and transmission, and gone to the extreme to allow significant environmental values and natural areas be impacted under the guise of national benefits.
35. The big push for offshore REG is also extremely risky in terms of ecological impacts and financial viability. In April this year, the NZ Conservation Authority criticised MBIE’s discussion document on enabling investment in offshore renewable energy as *“woefully inadequate with no mention of seabirds, environmental sound, changes to benthic habitats, impacts on hydrodynamics, wind, to name just a few examples. There is considerable international work on evaluation of sites, potential environmental impacts – and the different types of impacts (including their severity and duration) that occur at*

different phases of development.” The authority also called for a life cycle analysis of the carbon and energy footprint of offshore wind developments, considering the life span of the equipment, maintenance required, and comparisons with onshore operations.

36. **We ask that the Commission revise the language used in the advice in respect to REG and to include important caveats, notably the need to create co-benefits rather than compromises and conflicts e.g. with ecosystems and biodiversity protection, food production and other landuse.** Please refer to our submission to MBIE and the one by the Environmental Defence Society for details^{21, 22}.
37. *“For the coal used in industrial boilers, our demonstration path showed a 30% reduction by 2025 and 61% by 2030 relative to 2020 levels...”* For fossil gas used in low to medium temperature process heat, the *“demonstration path showed an 11% reduction in fossil gas consumption by 2025 and 26% by 2030, relative to 2020”* (CCC p.110). Such **reductions of coal and gas use are far too small**. The reliance on shifting to biomass or electricity to perpetuate the same extractive pathways (e.g. industrial dairying for export) creates other problems, as alluded to earlier. As an aside, dairy is increasingly open to disruption and becoming outcompeted by precision fermentation and other plant-based processes²³.
38. As the International Energy Agency (IEA), IPCC and Secretary-General of the United Nations have all stated, there must be no further exploration or development of fossil fuels to meet even modest future climate targets. Yet our governments continue to enable such activities. The National Party has also stated that if they win the October 2023 election, New Zealand will return to fossil fuel ‘business as usual’. Surely **the CCC should send a strong recommendation to cease and desist from further exploration and development in this Advice.**
39. In relation to fossil gas, more attention and efforts need to go into **reducing fugitive methane** as the severe impacts of methane and other short-lived gases^{24, 25} are becoming understood²⁶. Although new offshore oil and gas exploration permits have largely stopped since 2018, this year MBIE has granted Greymouth Gas Turangi Limited an exploration permit²⁷ off the north Taranaki coast and announced a petroleum block offer²⁸ which opens up more than a fifth of Taranaki’s land to potential oil and gas exploration. The reality is that drilling²⁹ and fracking³⁰ (and other forms of well stimulation) have continued, if not ramped up in Taranaki, both on and offshore. The more oil and gas activities occur, the more fugitive emissions eventuate. Moreover, the likelihood of gas leakages from old, fracked, even suspended, wells increase over time. The recent discovery of one of the suspended wells at the Kupe gas field having been leaking since 2018³¹, is just the ‘tip of the iceberg’. Notably, methane emissions from the energy sector are 70% higher than official figures and the IEA Executive Director said³² in 2022, *“At today’s elevated natural gas prices, nearly all of the methane emissions from oil and gas operations worldwide could be avoided at no net cost.”*
40. We support efforts into modernizing electricity transmission to enable integration with much more distributed RE generation and improving grid resilience against extreme weather events (CCC p115). We call on the Commission to **prioritise support for local, small-scale and community-based RE systems (including battery storage, smart micro-grids, vehicle to grid technology)** which foster energy democracy, equity, flexibility and resilience that centralised systems do not. Such systems would also be more effective in delivering equitable transition and hasten the reduction of fossil gas emissions.
41. The CCC’s demonstration path for an 18% reduction of fossil gas emissions by 2025 and 37% by 2030, relative to 2020, is far too weak (CCC p116). The fixation on ensuring fossil gas supply for feedstock and fuel in petrochemical industries is unhelpful. **Nearly half of NZ’s fossil gas extracted from Taranaki is consumed by two companies, Methanox to produce methanol for export and Ballance Agri-nutrients to product urea fertiliser.** The latter drives industrial agriculture, notably dairying across NZ, with

numerous devastating environmental and social harms³³. The urea plant has caused longterm nitrate and ammonia contamination in the soil, the tributaries nearby and the groundwater (Taranaki Regional Council, 2023)³⁴. Is it wise or fair for the NZ government to enable or even facilitate precious new REG and greenwashing opportunities for such industries?

Green Hydrogen

42. The technologies around so-called green hydrogen are extremely inefficient, would require huge investment in REG and cause additional environment impacts and landuse conflicts. As such, **we do not support green hydrogen development in general when there are alternative options including phasing out certain industries and transport demand. We strongly object to using green hydrogen to produce urea fertiliser** for reasons explained earlier and in solidarity with several Ngāruahine hapū³⁵.
43. We agree with the Commission’s advice against converting existing residential fossil gas network over to hydrogen (CCC p118 Box 9.2), not only because of the inefficiency, but also for the fact that hydrogen is also highly corrosive, combustable and prone to leakage³⁶. We support the Commission’s point on the risk of exporting green hydrogen impeding on domestic decarbonisation. **We are certainly against exporting hydrogen** of any colour! It is really important to identify and avoid falling for false solutions that can derail actual decarbonisation efforts while exacerbating ecological overshoot and social shortfalls³⁷.
44. At the time of writing, we discovered the Parliamentary Commissioner for the Environment’s new report which compared the economics of four future electricity system pathways. One of the conclusions reads³⁸, *“Southern Green Hydrogen is one of the poorest performing pathways across a range of indicators. Residential electricity prices remain high, and it is shown to be the worst pathway for providing energy security as measured by the level of security of supply risk quantified by the supply of last resort (SLR) in the system. All hydrogen pathways (2a and 2b) return a negative NPV [Net Present Value] over the modelling period across all cost of capital assumptions and discount rates, indicating that the social benefits of this pathway do not outweigh the costs under the range of sensitivity tests conducted.”* Clearly green hydrogen is a poor option for decarbonisation not just environmentally but socio-economically³⁹.

Carbon Capture, Utilisation and Storage

45. **The CCC’s draft advice section on carbon capture, utilisation, and storage (CCUS) needs to be rewritten** (CCC p122 Box 9.3). The current text relies heavily on industry information. It lacks independent critiques, notably on the effectiveness of various CCS and CCUS projects in terms of actually locking away meaningful quantities of CO₂ successfully for the long haul⁴⁰ or achieving real emissions reduction, not even with Bioenergy CCS (BECCS)⁴¹. There is no mention of seismic risks, either triggered by gas injection or seismic activities causing storage failure^{42, 43}. **We are deeply concerned about liability issues when there is a leakage.** With the pressure from industries, CCS and CCUS are not tangential subjects. The fossil fuel industry has spruiked the technology for decades, a ‘trojan horse’ for them to continue business as usual despite the lack of demonstrable successes and an abundance of failures. The impacts on Taranaki and implications across NZ could be huge, and warrant proper analyses and cautious direction from the Commission.
46. The text box fails to clearly distinguish or provide comparative analyses between CCS using industrial/mechanical methods from CCS or carbon dioxide removal (CDR) using natural methods. Crucially, in its sixth assessment report, released in March 2023, the Intergovernmental Panel on Climate Change (IPCC)⁴⁴ points out that *“biological CDR methods like reforestation, improved forest management, soil carbon sequestration, peatland restoration, and coastal blue carbon management can*

enhance biodiversity and ecosystem functions, employment, and local livelihoods.” The IPCC also notes that the implementation of mechanical direct air capture (DAC) along with underground sequestration of CO₂ “currently faces technological, economic, institutional, ecological-environmental and socio-cultural barriers.” Further, the current global rates of mechanical carbon capture and storage “are far below those in modeled pathways limiting global warming to 1.5°C to 2°C.”

47. Putting it succinctly, “biological methods have a superior return on resource inputs in comparison to mechanical methods. Biological methods are both more effective and more resource efficient in achieving a climate-relevant scale of CO₂ removal. Additionally, the co-impacts of biological methods are largely positive, while those of mechanical methods are negative”, Sekera et.al. 2023⁴⁵.
48. In view of the above reasons, **we cannot support the Commission’s advice for “an enabling regulatory framework by the end of the second emissions budget period to take advantage of any potential opportunities”.** We should not expand the scope of the ETS for CCS and CCUS. In many countries, policymakers have been wrong to advocate so strongly for mechanical CCS to the detriment of biological ones⁴⁶. GNS⁴⁷ has a team of at least 15 staff with experience on CCS. It is unclear how much NZ public funding has gone into CCS research and development. Instead of wasting precious time and resources⁴⁸ on these, we should focus on sharp and sustained gross emissions reduction, and ensure community wellbeing during transition.

Chapter 10: Forests

49. **We support Recommendation 15 in principle but emphasize that forestry needs to concentrate on permanent native forests for large land areas as opposed to large plantation forests.** Plantation forestry for timber and firewood needs to be concentrated on small land areas close to townships where trees can easily and safely be grown, maintained, accessed and processed in the future using renewable energy-based tools and transportation, and with reduced risks of wildfire or treefall and landslips that exacerbate flooding and loss of life.
50. Forestry, like agriculture, is another industry built around extraction and huge volumes of exports while we import similar volumes of processed timber. The latter relies on unethical cheap methods and labour overseas in countries with poor environmental and worker protections. Forestry needs to be designed within an economic model which provides for safe processing and manufacturing in Aotearoa, and create employment in many rural areas and towns, not just a few isolated areas as we have now. Small whanau-owned forestry lots with local thriving timber manufacturers is a common and useful example we can look to in central Europe, where the focus is on skill and quality workmanship and product rather than the cheap, flimsy, toxic materials so commonly produced in Aotearoa now.
51. While it is understandable that forests are singled out by having their own chapter, where are the other native ecosystems which can help reduce Aotearoa’s emissions by sequestering carbon, like wetlands, tussock lands, shrublands, mangroves, and ‘blue carbon’ such as kelp forests in the ocean? **We suggest an additional chapter on native ecosystems other than forests.**
52. These ecosystems could also be being restored, protected from degradation and otherwise enhanced, with the same multiple benefits as native forest restoration and protection. For example, **we support nature based solutions to climate risk** such as those proposed by Forest & Bird^{49, 50}, including:
 - Increasing feral browsing mammal control across all public land (including all public conservation land) to improve their ability to act as carbon sinks. Some native forests are actually losing carbon due to the impacts of browsing mammals: ‘Our largest forest type is presently bleeding 3.4 million tonnes of CO₂

every year.’ In addition, ‘their direct consumption of vegetation and methane production is equivalent to around 3.1 million tonnes of carbon dioxide per year.’⁵¹

- Developing a Wetland Restoration Plan aimed at doubling the extent of natural wetlands in New Zealand by 2050⁵².
53. We are wary of potential unintended consequences of the use of biomass to replace coal in high-temperature furnaces, as part of the bioeconomy. While there may be a role for fast growing exotic trees or other plants in this, there need to be safeguards against outcomes which would negatively impact biodiversity, erosion or water quality. For example, conversion to exotic plantation forestry of land deemed unproductive for agriculture which is currently covered in ‘scrub’: this land may actually be reverting to native forest or shrubland, and meanwhile is protective against erosion (See Bioeconomy section later).

Chapter 11: Transport

54. The goal of 100% of new or second-hand car imports being electric by 2035 is too slow. **We propose phasing out all internal combustion engine (ICE) vehicle imports by 2025, especially light vehicles.** This would help to incentivise more vehicle sharing, public and active transport and hasten the uptake of EVs. Ultimately the reduction of private car ownership would result in many co-benefits environmentally and socially. It is also worth noting that EV utility vehicles designed for on-farm use are becoming increasingly available.
55. **In terms of scaling up charging infrastructure (Recommendation 17), we propose that policy and funding support be extended to schools and other tertiary institutions** to maximize exposure and educational opportunities. In respect to schools in smaller communities, renewable energy generation connected to microgrids that allow power sharing and two-way flow would further support EV uptake, especially community or school E-fleets. Schools are unique in that there is generally little or no electricity demand in the evenings when demands peak at homes. Over term breaks, their roof top solar panels continue to generate electricity which can supply power for EV charging and the local community. The Ministry of Education may have a role here.
56. **In terms of reducing emissions from road freight (Recommendation 18), greater support for localisation of production, marketing and rural sufficiency needs to be part of the solution,** rather than trying to meet the anticipated increase in freight volumes associated with growing import-export trade (CCC p144). If agriculture and forestry develop the way we suggest with a focus on small-scale, local markets and manufacturing, there will be far less need for large tractors, combine harvesters, truck and trailer transport, ships and planes. If companies invest in expensive electric or hydrogen vehicles with the associated infrastructure, businesses will be obliged to continue their large scale extractive and polluting activities as usual. We know that heavy vehicles are damaging to road infrastructure which emits more GHG for repair and upgrade, along with the road deaths associated with them. They are of course also much more costly to decarbonise.
57. **We strongly agree with increasing support for rail and coastal shipping** to lower emissions and increase resilience to climate impacts. Indeed any ‘national freight and supply chain strategy’ must thoroughly consider the integration of rail and coastal shipping, as well as strengthening regional and local supply chains as mentioned above.

58. **We do not support the promotion or reliance of drop-in biofuels for aviation, including so-called ‘sustainable aviation fuels’,** because of their ineffectiveness in reducing emissions in a meaningful way without causing large-scaled environmental problems and landuse conflicts. Instead, **we call for a ban on all advertising for air travels, fossil fuels and high emitting commodities like ICE SUVs.** Similar bans on fossil fuels adverts have either already occurred or been considered in France⁵³, Amsterdam⁵⁴, Haarlem⁵⁵ and Liverpool⁵⁶, though not comprehensively. Moreover, we need to commit to reporting and reducing our emissions from international flights which are currently ignored.

Chapter 12: Waste & fluorinated gases

59. **While we agree with applying regulatory and policy instruments for high performance landfill gas capture systems and data collection (Recommendation 19), we would like to see a much stronger push for ending or severely restricting organic waste disposal to landfill.** A 2030 ban or limit is too slow (CCC p150). The Commission could also have signalled more strongly the diminishing role of landfills over time as circular economy takes hold along with Degrowth (See Bioeconomy section later).
60. We strongly agree that *“creating a fit-for-purpose resource recovery network remains essential to large scale resource recovery and waste emissions reduction in Aotearoa New Zealand”* (CCC p151). We believe the focus on a vast network of numerous resource recovery hubs at local, community and Māori-collective levels would be the best way forward, considering the range of co-benefits for the communities, notably employment and education, and linkages with local food production through community composting and vermiculture initiatives. We ask that the Commission include a **recommendation for government support for the establishment of a network of resource recovery hubs at local, community and Māori-collective levels.** The support may include finance, land and technical assistance if needed. We support establishing a proportion of contestable Waste Minimisation Funds for related initiatives (e.g. kai rescue) led by Iwi/Māori groups to address current inequities (CCC p152).

Thermal Waste-to-Energy

61. We are grateful for the Commission to have pointed out the serious issues over thermal waste-to-energy operations, notably the risks of them in locking in the supply of waste as feedstock, competing with recycling efforts, and increasing emissions (CCC p153). The case studies from the UK are compelling and justify a precautionary approach. Companies are already attempting to set up operations here, at Waimate⁵⁷ in Canterbury and Kaipara⁵⁸ near Auckland, despite growing, rational community oppositions⁵⁹. The draft Advice has not touched upon the health risks on nearby communities where thermal waste-to-energy plants are located. With all these in mind, **we ask that the Commission go a step further and recommend the government to put a moratorium on thermal waste-to-energy operations,** to avoid far reaching social, environmental and climate impacts and costly litigation from the lack of prudent government direction.

Chapter 13: Research, science, innovation & technology

62. Research, science, innovation and technologies (RSI&T) are useful *“to provide the knowledge and insights needed to transform to a low emissions economy that is both resilient and prosperous”*. It is extremely frustrating to see universities cutting their staff and teachers not being paid decent wages despite their frontline role in nurturing young minds for inquisitive, critical and innovative thinking. Still, RSI&T will not be enough to shift behaviours, policies and societies as a whole, to ways of living and an

economy that respect planetary boundaries and look after the wellbeing of the most vulnerable. Educators, community organisers, care, union and youth workers, food growers, naturalists, ecological economists, activists, and of course indigenous people, are all key to societal transformation.

63. We are concerned that too much RSI&T efforts are being put on *“inventing new ways of generating energy, new fuels, developing more efficient processes or technologies to reduce emissions from agriculture”* (CCC p157) when the most urgent way forward is to reduce our energy demands, material consumptions, stock number and fertiliser use. What we really need are new ways of organising societies and supporting communities to live good lives that care for the environment and each other (See section on Circular and Bio-economy later).

Chapter 14: Funding & finance

64. We broadly agree with the CCC around the need for ambitious public investment to lower emissions with a strategic approach. If the COVID-19 pandemic response has taught us anything, then it is the ability for governments to invest massively in times of crisis in our economic development. However, as Hickey⁶⁰ has pointed out, *“the government will have given at least \$20b in cash to business and asset owners in a period when those asset owners have increased their cash savings accounts by \$45b to \$319b.”*
65. Climate change requires our full attention and public investments for emission reductions and adaptation on massive scale. In the United States, the proposal for a ‘Green New Deal’ is gaining traction and Climate Justice Taranaki has made similar contributions in our document *Toitū Taranaki 2030 - A Community Powered Strategy for a Fast and Just Carbon Neutral Transition*⁶¹.
66. However, we need to ensure that we do not repeat mistakes made in the fiscal spending during the COVID-19 response. Public investments need to tackle the inequality that is perpetuated by the capitalist economic system. The call for ‘climate justice’ is around creating a quadruple bottom-line – decisions need to be made around the congruence of economic, social, environmental and cultural regeneration.
67. We agree that *“putting people at the centre of funding and finance”* is absolutely crucial. However, we need to do so with a social and indigenous justice lens. **It is vital that this process is led by iwi and hapū, together with trade unions and grassroots community organisations to ensure the well-being of those most impacted at the frontlines of climate change have mechanisms to determine how public investments are managed.**

Chapter 15: Circular economy and bioeconomy

68. **The draft advice also fails to depart from the mantra of growth**, demonstrated by statements like, *“the bioeconomy has the potential to increase the value of the economy overall... the global circular bioeconomy is projected to grow and reach a value of...”* (CCC p170).
69. While a circular economy offers a preferred alternative to the current linear model of extraction, use and discard, it is no panacea because of the multiple planetary boundaries we have already breached and the social thresholds that we are yet to reach globally and in Aotearoa. Bioenergy cannot support the level of economic activities that fossil fuels have, even with serious landuse conflicts while renewable technologies generally require mining for finite minerals of which there is not enough⁶². **‘Green growth’ - the idea that economy growth can be decoupled from environmental harm, has been debunked in**

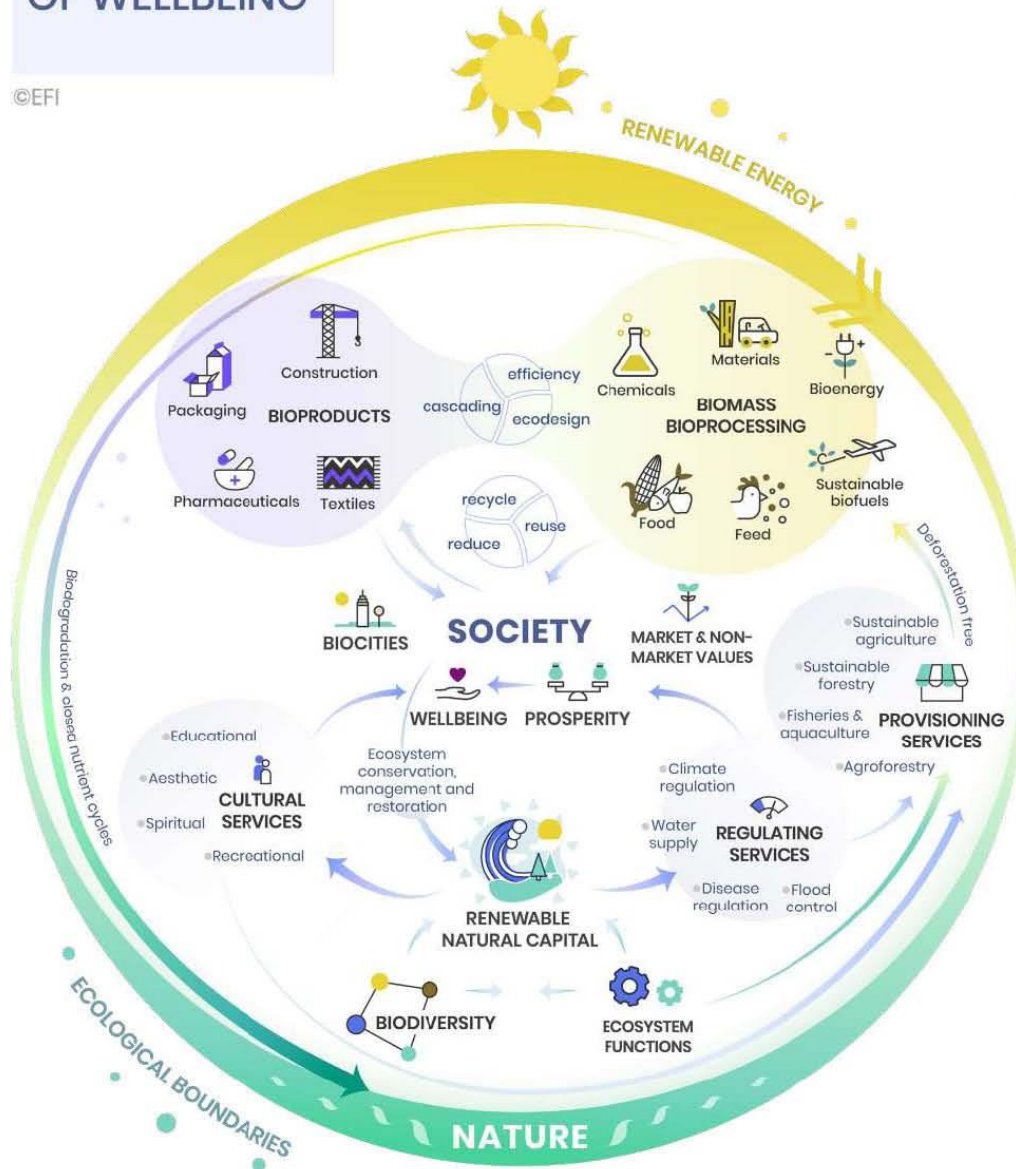
various reports. Notably Parrique et al. 2019⁶³ produced for the European Environmental Bureau concluded, “*not only is there no empirical evidence supporting the existence of a decoupling of economic growth from environmental pressures on anywhere near the scale needed to deal with environmental breakdown, but also, and perhaps more importantly, such decoupling appears unlikely to happen in the future.*”

70. **A circular economy must start with using less**⁶⁴. As a wealthy nation, it is our responsibility to reduce our overall energy and material consumption while investing in social equity and wellbeing, both domestically and internationally. In other words, **we need to transform our growth economy through Degrowth⁶⁵ to a Post Growth⁶⁶ state which resembles a small Doughnut economy⁶⁷.**
71. Palahí et al. 2020⁶⁸ published by the European Forest Institute laid out ten action points for a ‘**Circular Bioeconomy of Wellbeing**’. The first point is to replace the current fossil-based economy addicted to “*growth at all costs*” measured by Gross Domestic Product (GDP) with “*an economy aiming at sustainable wellbeing centred around people and our natural environment*”. Rather than focussing only on market transactions, the “*new indicators of sustainable wellbeing, including human health, which should include the broad range of non-market contributions from natural and social capital.*” The illustration (Appendix 1) provided in the publication, while not perfect, offers a more holistic vision than **Figure 15.1 in the CCC draft advice which omits the all important Wellbeing.**
72. **We caution the push for bioenergy**, especially ‘waste to energy’ including biogas generation from household food wastes. The Ecogas Reporoa example (Box 15.4) is a poor one, because it omits better alternatives such as community composting or vermiculture initiatives, and creates a market demand for food wastes. Such initiatives empower communities and produce more superior products compared to the ‘bio-fertiliser’ that remains after anaerobic digestion, with much less fossil fuel trucking of organics across large areas. Our view is that biogas production is better limited to hazardous organic wastes such as urban sewage and medical wastes or small scaled farm-based systems which could potentially help fuel farm machineries while dealing with animal wastes. Along with many other groups, **we are opposed to waste to energy incineration^{69, 70} and ask that the CCC recommend a moratorium while such technologies and their implications to New Zealand be critiqued thoroughly.** Turning forest ‘waste’ into fuels is also risky, especially if demands outstrip supplies, hence driving wholesale land conversion to monocrop forestry.
73. However, we very much agree with the CCC’s advice for **inclusion of consumption-based emissions** in our national greenhouse gas inventory and more robust data and transparent information, as well as regulated product stewardship, right to repair legislation and bioproduct standards.

Appendix 1

CIRCULAR BIOECONOMY OF WELLBEING

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Source: Fanning, AL, O'Neill, DW, Hickel, J et al. (1 more author) (2022) The social shortfall and ecological overshoot of nations. *Nature Sustainability*, 5 (1). pp. 26-36
https://efi.int/sites/default/files/files/publication-bank/2023/EFI_K2A_2_2020.pdf

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