

Climate Justice Taranaki submission on Te hau mārohi ki anamata—

Emissions Reduction Plan discussion document, November 2021

1. Climate Justice Taranaki Inc. (CJT) 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 impact future generations' inalienable rights to safe water, food and shelter, crucial to sustaining livelihoods and quality of life. CJT became an incorporated society in 2015.
2. We appreciate the opportunity to submit on Te hau mārohi ki anamata – Emissions Reduction Plan discussion document¹. Our submission below addresses some of the set questions in the document. The headings follow some of the main headings of the document.
3. Given the demonstrable urgency of the transition, this document, and indeed government policy more generally, fails comprehensively in addressing the major climate and ocean pollution challenge facing Aotearoa New Zealand in the very short 'window of opportunity' remaining. These failures result from ingrained bureaucratic denial as to the level of change to our economy and lifestyles that will be required within the next decade, if we are to adequately address the triple climate, ecological and social crises facing Aotearoa and our world at large.

Working with our Tiriti partners

4. Approaching Tiriti partnerships by talking about more consultation and translating Kawanatanga as the right for the government to govern just starts off on the wrong foot. Many Maori are over being consulted and typically ignored. Maori want to govern themselves and their rohe and protect and restore their taonga. The government needs to admit that Te Tiriti only allowed the British government to govern their British subjects, not Maori. The unlawful English Acts Act is where it all started to go wrong and that is on the so-called Crown to properly rectify, so that Maori can govern themselves and we can all live well together as agreed in Te Tiriti.
5. While it is good to involve Maori with mana whenua in national-level strategies, Maori need to have an equal representation or more on regional and district councils and be trained and resourced to take over or share equally the mahi of entities that deeply concern Maori such as the Department of Conservation, Crown Minerals, Primary Industry, Housing, Health, Climate, Education, Ministry for Children, Social Development, Fisheries, International Affairs and more.
6. Support to rebuild papakainga is a priority for Maori, to allow disconnected whanau to return home and restore their mana Maori and take up much needed roles as kaitiaki for their people and rohe. Papakainga need infrastructure and services such as housing, energy, clean water, composting toilets, communications, forest and food production, education and health services.

Making an equitable transition

7. Early this year, our group, with input and participation from other community groups, wrote a document to articulate our vision: "*Toitū Taranaki 2030 A Community Powered Strategy for a Fast and Just Carbon Neutral Transition.*"² We suggest that we weave and create a way of looking at this transition journey through a different lens, an all-inclusive mana taiao mana tangata lens respectful of the environment and people.

¹ <https://environment.govt.nz/publications/emissions-reduction-plan-discussion-document/>

²

<https://climatejusticetaranaki.files.wordpress.com/2021/05/toitu-taranaki-2030-just-transition-community-strategy-apr21-web.pdf>

8. Indeed, an equitable transition would require systemic transformation that is potentially disruptive but is necessary. We can no longer avoid degrowth^{3,4} – a shift away from infinite growth that is breaching planetary boundaries – to ways that regenerate biosphere integrity and community wellbeing, especially those who have been marginalised by the current economic system. Our oversized, export-import heavy economy exploits natural resources and people, to generate profits and drive extreme inequality. An equitable transition would require downshifting our extractive, export and profit driven economy to one that is more local, and focussed on environmental and community wellbeing. An economy that is focused on wellbeing, rather than GDP or income, would have a far better chance of delivering what we truly value⁵. It would help to build community resilience to deal with climate and ecological crises. [Questions 14, 15, 20]
9. The discussion document (p.27) talks about a vision “to shift to a high-value, resilient economy that creates a healthy environment and wellbeing for all.” An infinite growth economy that relies on abundant, ‘cheap’ energy cannot be resilient as we are running out of cheap energy (The Economist, 9 Oct 21)⁶ and cannot expect renewables to offer the same⁷. A recent analysis made it “clear that the pat notion of “affordable clean energy” views the world through a narrow keyhole that is blind to innumerable economic, ecological, and social costs. These undesirable “externalities” can no longer be ignored. To achieve sustainability and salvage civilization, society must embark on a planned, cooperative descent from an extreme state of overshoot in just a decade or two,” Seibert and Rees (2021)⁸.
10. An equitable transition needs to be more ambitious than “ensuring any cost increases do not disproportionately burden those with limited capacity”. It needs to ensure that the rich pay for their share (i.e. substantially reduce their much oversized footprints) and to support those who have long been struggling because of systemic injustice; in part through overhauling our taxation and social welfare systems. We need to achieve a truly egalitarian society, rather than one where the ideal is espoused but not actioned. Inequality stems from cruel ideologies of race and class dominance which sets a societal belief in false concepts of deservedness to climb the social hierarchy and accumulate wealth. Emphasis needs to be on education, policies and actions that dispel these beliefs and rebalance power and wealth from those that have to those that don’t. Examples include wealth tax, capital gains tax, universal basic services, living wages and fair work conditions, affordable and appropriate homes, accessible and affordable/free public transport, return of public services for rural communities, local food production, manufacturing and local markets. These all help to reduce emissions and living expenses while building community resilience, and increasing good employment. Unproven, costly, ‘think-big’ projects

3

https://heliocene.org/2021/10/16/will-degrowth-replace-green-growth/?fbclid=IwAR3919tdz_a4aqhw2DTSX4f7VygdYYS7zSo1w4p8KvoulhgSheajVw6y5hE#_ednref4

⁴ <https://www.jasonhickel.org/less-is-more>

5

<https://www.resilience.org/stories/2020-05-13/new-zealand-deprioritizes-growth-improves-health-and-wellbeing/>

⁶ <https://www.economist.com/finance-and-economics/the-age-of-fossil-fuel-abundance-is-dead/21805253>

reprinted in

https://www.stuff.co.nz/business/world/300424963/the-age-of-fossil-fuel-abundance-is-dead?fbclid=IwAR0_Go0S_TDnundGh8104LZfT0oJkQQapaOgPjlpVPznKQWRw-dGv_8KfVs

7

<https://www.stuff.co.nz/environment/climate-news/122689734/sustainability-is-wishful-thinking-get-ready-for-the-energy-downshift>

⁸ <https://www.mdpi.com/1996-1073/14/15/4508/htm>

that deliver singular benefits and mostly for industries and the rich, should not be on the table. [Questions 15, 16, 20]

11. There is a great deal of focus on “*supporting workers, households and communities*” that may be more affected because of the industries they have traditionally depended on. While this is important, we shouldn’t forget those who have long been below the poverty line, are jobless or needing support even prior to any industry phase out or transition. Transition must be for everyone but more so for those in real need. The government needs to learn from its mistake over the Covid wage subsidy which focussed on keeping people in jobs but neglected those who were already unwaged before the pandemic, causing avoidable grievances⁹. Similarly, while cutting mortgage rates during Covid 2020 so the rich could go shopping, the poor still faced housing shortages and terrible rents. Moreover, while “*monitoring impacts and responding as they emerge*” is crucial, it is equally important that we don’t just respond to a new crisis but address the existing ‘daily’ crises caused by our entrenched system that has been fuelling poverty and inequality. Capitalist economies only profit by not giving back appropriately to their exploited workers and the extracted environment. [Questions 16, 17]
12. There is some merit in helping businesses and industries financially in the transition. However, we should know by now that the presumed trickle-down economics has not served those at the bottom of the food chain¹⁰. We need to put on a critical lens and stop propping up the big end of town, with our limited resources needed for so many essential demands. As an example, the Government Investment in Decarbonising Industry (GIDI)¹¹ programme has funded some of the countries’ largest meat growing, processing and export companies, which possibly could pay for the transition themselves with their accumulated wealth. While it is good to replace their coal or gas boilers and machines with electric ones, we’re also perpetuating industrial-scaled animal exploitation for export products, which has enormous impacts on the climate, soil and waterways, not to mention farmers and animal welfare. ANZCO is one of those companies funded by GIDI. Shocking photos were released recently on Canterbury ANZCO beef feedlot along with an animal welfare complaint¹². [Question 19]

Emissions Pricing

13. Our group has repeatedly pointed out the flaws and over-reliance on the emissions trading scheme as the tool to reduce emissions, in various submissions, including the latest in regards to industrial allocations (IAs)¹³. Our views remain unchanged. We simply cannot rely on the market to fix the problems it created, certainly not as the main or only tool, and not to address the root causes. Sharp, strong decisions need to be made to eliminate and/or substantially reduce some of the hard-to-abate emissions. All free allocations should end immediately. No more excuses. We strongly agree with Motu’s analysis that “*The closure of some industrial production in New Zealand and the redeployment of its labour and capital may be a necessary and ultimately*

9

<https://www.stuff.co.nz/business/300012977/budget-2020-has-forgotten-about-the-unemployed-advocates-say>

¹⁰ <https://ethicalunicorn.com/2021/06/30/what-is-trickle-down-economics-why-it-doesnt-work/>

¹¹ <https://www.eeca.govt.nz/assets/EECA-Resources/Co-funding/GIDI-Fund-Summary-of-Projects-Round-2.pdf>

¹² <https://www.rnz.co.nz/news/country/454329/canterbury-anzco-feedlot-faces-inspection>

¹³

<https://climatejusticetaranaki.files.wordpress.com/2021/09/cjt-submission-on-ets-industrial-allocations-17sep21final.pdf>

beneficial part of the country's low-emission transition" (Rontard and Leining, Sept 2021)¹⁴. As an example, Canadian owned Methanex uses nearly half of all Taranaki's natural gas, much of which is extracted by fracking underneath our productive farmlands, to produce methanol for export. It has been profiting¹⁵ from free IA¹⁶ (1.18M units in 2020 alone)¹⁷ and avoiding tax¹⁸ while greenwashing its operation and product. Rio Tinto and NZ Steel are the same. We should stop allowing ourselves to be held ransom by large corporations that don't want to reduce or mitigate their waste. We can let these companies go and use the energy provided to them to pump into the main grid for essential community needs during transition instead, and support communities overseas to mitigate, reduce or stop 'emissions leakage' if the company relocates overseas. [Question 32]

14. As acknowledged in the discussion document, the Climate Change Commission has noted that the current NZ ETS settings will incentivise more planting of fast-growing pine and other exotic species than is wise or desirable, and Aotearoa should transition to permanent native forests. There should be a moratorium on new or expansion of pine plantations now, other than what is needed for ongoing sustainable domestic use. Efforts should be put into planting a diverse range of permanent forests, especially of native species, but also non-invasive species that are suited for coppicing (for firewood, timber, fibre) and/or tree crops that produce food for people and animals. In the draft ERP, there were concerns around a lack of land availability, suggesting a need to offset carbon overseas. This should be yet another incentive to encourage farmers to downsize their operations, to reduce stock numbers and retire pasture land for forests. It would shift our model of huge tracts of forest far from people and huge tracts of farmland with little space for people, to instead incorporate food, fibre and timber needs amongst people. This is done in most traditional community settings from the hills of central Europe to the plains of India where landowners have a housing area, horticulture and crops area, grazing land and combined forest areas, generally over streams where people can also gather and hunt wild foods close to home. Local manufacturing of wood should also be supported to supply the housing crisis needs and create new, skilled jobs, rather than shipping back and forth to 'cheap' overseas manufacturers. If planned and executed well, these would generate multiple co-benefits in the areas of climate mitigation, biodiversity, riparian restoration, food security, reduced transportation and community resilience. [Question 31]

Planning

15. Our submission¹⁹ on the exposure draft of the Natural and Built Environment Bills contains points relevant to planning. (It should be noted too that solutions don't necessarily need to be

¹⁴

<https://www.motu.org.nz/our-research/environment-and-resources/emission-mitigation/emissions-trading/future-options-industrial-free-allocation-nz-ets/>

¹⁵

<https://www.methanex.com/news/methanex-second-quarter-2021-results-demonstrate-favourable-methanol-industry-fundamentals-and>

¹⁶ <https://www.stuff.co.nz/taranaki-daily-news/news/2900627/Methanex-to-escape-ETS-penalties>

¹⁷ <https://www.epa.govt.nz/industry-areas/emissions-trading-scheme/industrial-allocations/decisions/>

¹⁸

<https://www.nzherald.co.nz/business/top-multinationals-pay-almost-no-tax-in-new-zealand/MABUXPEGHISZWPEDKC3EWA7M6I/>

¹⁹

<https://climatejusticetaranaki.files.wordpress.com/2021/08/cjt-submission-on-rma-reform-nbe-exposure-draft-4aug21.pdf>

planned but can happen as a result of other immediate actions eg. removing lots of car parks, resulting in less time and money spent on research and plan changes to towns and cities.)

Research, science and innovation

16. We recognise the need for research, science and innovation to help us transition off fossil fuels and energy intensive or wasteful operations. However, investment into these areas needs to be carefully scrutinised, so that it does not inadvertently or knowingly create or exacerbate other environmental or social problems within or beyond Aotearoa, or waste precious resources and time at the expense of proven and less costly technologies and practices. Rather than forever spending tax dollars looking for silver bullets though, we must invest now in proven sustainable methods that reduce emissions and don't contribute down the line to climate pollution or other environmental or social harms. [Questions 37, 39]
17. We cannot support the aspiration for Aotearoa to profit from supposed '*unique global advantage in low-emissions abatement*' (page 46) in this time of global climate, ecological and humanitarian crises. We should be helping others to get through the climate crisis rather than taking advantage of crises and inequality. Encouraging business on a global scale which relies on international transportation, is also not compatible with trying to reach a zero carbon budget. We need to downshift from import and export economies to non-polluting, regenerative local economies. [Question 38]
18. Hydrogen is not an energy source, but a secondary energy carrier that must be produced from other sources, requiring additional energy. Taking an efficiency of 60% for electrolysis as the basic technology, and irrespective of the efficiency of electricity production itself, we will need to nearly double the world's energy production to replace hydrocarbons with hydrogen²⁰. The push for hydrogen, despite its pitiful EROI (energy return on investment)²¹, as fuel cell for transport or as feedstock to produce urea are a total waste of precious energy, time and resources, as prominent engineers and ourselves have explained repeatedly^{22, 23}. Using hydrogen to make urea to perpetuate industrial animal agriculture will continue emissions unabated and exacerbate the severe impacts on water, soil and human health²⁴. We cannot determine the validity or priority of research or so-called innovation purely by point source emissions. [Questions 40, 68]
19. Moreover, all current renewable energy (RE) and supposed clean technologies rely on fossil fuels (FFs) and/or mineral mining or deforestation for their production and large-scaled deployment. There are also land use issues, especially with bioenergy. Relying on vast adoption of RE technologies to meet current or projected demands will perpetuate the extractive, exploitative pathway that's central to the endless growth, capitalist, economic model that has led to our current climate and ecological crises, along with extreme social inequality. The level of ambition

²⁰https://www.academia.edu/59090947/On_the_sources_of_hydrogen_for_the_global_replacement_of_hydrocarbons?email_work_card=view-paper

²¹

<https://www.stuff.co.nz/environment/climate-news/122689734/sustainability-is-wishful-thinking-get-ready-for-the-energy-downshift>

²²

<https://climatejusticetaranaki.wordpress.com/2021/10/04/press-release-fast-tracking-hiringa-ballance-kapuni-hydrogen-project-%ef%bf%bc/>

²³

<https://climatejusticetaranaki.files.wordpress.com/2019/10/cjt-submission-on-mbie-hydrogen-green-paper-oct-19-v3-final.pdf>

²⁴

<https://www.rnz.co.nz/news/national/455238/contaminated-water-may-lead-to-40-deaths-a-year-in-nz-study>

that the government adopts for a renewable energy target needs to be based on thorough consideration of these aspects. [Questions 41, 60]

20. *“Clearly, the climate crisis cannot be solved in isolation from the macro-problem of overshoot—certainly not by using technologies that are reliant on the same FFs and ecological destructive processes that created the problem in the first place... By viewing climate change, rather than ecological overshoot—of which climate change is merely a symptom—as the central problem, the GND [Green New Deal] and its variants grasp in vain for techno-industrial solutions to problems caused by techno-industrial society. Such a self-referencing pursuit is doomed to fail...”*
21. *“While we inevitably face a future underpinned entirely by RE, the question is not how to meet current total demand, but rather to determine: (a) which RE technologies are actually sustainable and viable; (b) the contexts in which they might be so, including the priority uses to which they might be applied; and (c) how to effectively and fairly reduce energy demand,”* Seibert and Rees (2021)²⁵.

Circular economy and bioeconomy

22. The introduction to circular economy—*‘building up a new economic system that operates within planetary boundaries and achieves wellbeing for all. It is about moving from an extractive economic model... to one that is regenerative, circular and equitable’*—reads fine (page 48). And we are glad to *“reduce our reliance on imported resources, for greater resilience”* in the bioeconomy section (page 50).
23. The problem is that globally humanity has long breached several of the planetary boundaries beyond which humanity’s safety and wellbeing is at stake (Rockstrom et al. 2009²⁶; Steffen et al. 2015^{27, 28}). A 2020 report²⁹ commissioned by the Ministry for the Environment showed that Aotearoa NZ itself has exceeded its “fair share” of the global safe operating space for most production-based and consumption-based boundaries: climate change, biodiversity and biogeochemical flows (nitrogen and phosphorus). Notably NZ’s production-based emissions of methane and nitrous oxide from food production (39MtCO₂-eq) in 2010 were more than ten times over the sustainable level of CO₂-eq based on a global equal per capita distribution. By 2050, NZ food consumption is projected to twice exceed its fair share, given the high consumption of red meat. [Questions 45, 47]
24. Clearly we need to pull back the overshoots by stopping further extraction, exploitation and pollution, and redistribute wealth and resources, before we can talk about *‘a new economic system that operates within planetary boundaries’* and is *‘equitable’*. If it is to be a ‘circular economy’, then the circle needs to shrink rather than expand as imposed by perpetual economic growth. [Questions 47, 49]
25. *“Degrowth to responsible levels and types of production and consumption is increasingly being seen, not only as a feasible idea, but the only feasible idea for a future economy that can operate*

²⁵ <https://www.mdpi.com/1996-1073/14/15/4508/htm>

²⁶ <https://www.nature.com/articles/461472a>

²⁷ <https://www.science.org/doi/10.1126/science.1259855>

²⁸ <https://www.stockholmresilience.org/research/planetary-boundaries/the-nine-planetary-boundaries.html>

²⁹ <https://www.stockholmresilience.org/download/18.66e0efc517643c2b810218e/1612341172295/Updated%20PBNZ-Report-Design-v6.0.pdf>

within climate and ecological limits,” Jennifer Wilkins, 2021³⁰. With carefully defined principles and comprehensive checks and balances, a circular economy incorporating bioeconomy is worth exploring and supporting. However, it cannot address the root cause of our ecological overshoot and extreme social inequality, until we are committed to degrowth and redistribution of wealth and resources to ensure wellbeing for all. We need to shift our focus from profits and economy to “*private sufficiency, public luxury*” as George Monbiot³¹ eloquently put it. [Questions 45, 46, 47, 48]

Transitioning key sectors

Transport

26. This is by far the biggest section under sector transitioning – a total of 27 pages (p.54-80), when compared with energy and industry (p.81-90), building and construction (p.90-96), agriculture (p.97-100), waste (p.101-109), F-gas (p.110-114) and forestry (p.115-122). This appears odd considering the number of policy and discussion documents that have been produced, notably the Ministry of Transport’s Green Freight working paper (2020)³² and Hīkina te Kohupara consultation which we submitted on in June this year³³. It is good to hear that some of the feedback from submitters have been taken onboard.
27. While we support the reduction of VKT by cars and light vehicles and increase the percentage of zero-emissions light vehicles, both need to be way above 30 percent by 2035, and we also need to reduce the total number of private vehicles considerably . [Questions 52, 53]
28. In addition, a ban on ICE vehicle imports by 2023 should be accompanied by a ban on ICE vehicle advertisement now. The Commission’s 2030 ban is far too late. [Question 56]
29. Why ignore the ‘low hanging fruit’ of a reduction in speed limit on open roads to 80km/hr and a weekly carless day to reduce fuel consumption, improve road safety and facilitate active transport? These have been done before during the oil shock in the 1970s and should be resumed in view of our climate crisis, albeit much more vigorously and without all the exemptions that made the previous measures ineffective³⁴. [Question 57]
30. One key point that is missing in the discussion is the need to repeal legislations which require (a) state owned enterprises (notably KiwiRail), and (b) public transport to be profit-making for councils to obtain government funding. This is critical in ensuring that public transport is affordable or free³⁵ and accessible to all. [Question 57]
31. Another important point is that priorities and incentives need to be given to (a) bringing or returning public services (including schools) to rural communities (which will be needed more

³⁰

https://heliocene.org/2021/10/16/will-degrowth-replace-green-growth/?fbclid=IwAR3919tdz_a4aqhw2DTSX4f7VygdYYS7zSo1w4p8KvoulhgSheajVw6y5hE#_ednref4

³¹ George Monbiot – 40th Annual E.F. Schumacher Lecture. <https://www.youtube.com/watch?v=63WSvrqulPU>

³²

https://www.transport.govt.nz/assets/Uploads/Paper/Green-Freight-Strategic-Working-Paper_FINAL-May-2020.pdf

³³

<https://climatejusticetaranaki.files.wordpress.com/2021/06/cjt-submission-to-motransport-hikina-te-kohupara-with-toitu-23jun21.pdf>

³⁴ <https://www.stuff.co.nz/motoring/115929541/friday-flashback-remember-the-oil-crisis-and-carless-days>

³⁵

https://our.actionstation.org.nz/petitions/now-is-the-moment-for-free-fares?utm_source=actionstation&utm_medium=email&utm_campaign=blast2480&source=actionstation&bucket=blast2480&fbclid=IwAR2MwDqoKSUr5tPd6ySLTOLFVva5hkgEiiqLGUHmASb1wWdZePh6RL0n-Yk

when farmers sell land for more rural housing and businesses), and (b) relocating production and marketing of goods. Both would help to reduce travel and freight needs and strengthen community wellbeing and resilience. First coined by Paris Mayor Anne Hidalgo, the concept of 15 minute cities which focuses on pedestrianisation and public transport, is being trialed and put into practice in numerous places^{36, 37}. This model does not only reduce emissions, but improves health, accessibility and community connectedness. [Question 57]

32. The NZ Rail Plan (2021)³⁸ pointed out that every tonne of freight moved by rail produces 70 percent less carbon emissions than heavy road freight, and there is a need to substantially increase investments 'to foster resilience' of our rail network. We then question why KiwiRail would buy 57 new diesel freight engines from Spain for the South Island³⁹ when there is an urgent need to transition off fossil fuels with surplus electricity when the Aluminium Smelter closes. Betting on future hydrogen engine conversions from diesel is just bad business decision-making. [Question 57]
33. To meet the much-reduced freight demand resulting from localisation of production and a shift away from an export economy, renewable energy powered electric trains are a priority. Low emission, efficient advanced biofuels or 'drop-in fuels' that do not require blending with fossil fuels or replacement of conventional vehicles may be considered. They must not create adverse land use issues or land access competition with permanent forests, food production or other essential community needs. Products marketed as waste wood need to be actual waste not whole virgin trees as is now becoming evident with some falsely labelled products. Burning whole trees instead of fossil fuels does not reduce emissions and can indeed increase emissions⁴⁰. [Question 54]
34. Aviation needs to be substantially reduced as no amount of alternative fuel would be enough to keep up with the current and projected demands. Moreover, as explained earlier, renewable energy and technologies come with their own environmental and social impacts, in addition to their reliance on fossil fuels. These include so-called 'sustainable aviation fuels'. MBIE's consultation paper on the Sustainable Biofuels Mandate⁴¹ acknowledged that "*biofuels can have markedly different lifecycle emissions and it cannot be taken for granted that all biofuels will reduce GHG emissions.*" Regulations specifying how lifecycle emissions of biofuels should be quantified or which specific certification standards⁴² should be used, are yet to be developed. In any case, the Mandate would not cover any 'exported fuel', i.e. fuel used by aircraft and ships on international trips. Currently airfares do not reflect any of the environmental and social costs they incur. Most domestic flights can be easily replaced by land transport, such as an overnight train⁴³ between Auckland and Wellington. Obviously, there needs to be pricing mechanisms to ensure that the costs of domestic flights are far less attractive than travelling by bus or train.

³⁶ <https://tomorrow.city/a/paris-15-minute-city>

³⁷ <https://www.15minutecity.com/>

³⁸ <https://www.transport.govt.nz/assets/Uploads/Report/The-New-Zealand-Rail-Plan.pdf>

³⁹

https://www.rnz.co.nz/news/business/453383/kiwirail-bringing-trains-from-spain-to-roll-on-the-plains?fbclid=IwAR0Fgxdf9W65E6gOTzP96khnVO1vOrY_I59TEBiOPPDGvNPgl5UwPBHar6g

⁴⁰ <https://www.nrdc.org/sites/default/files/forests-not-fuel.pdf>

⁴¹

<https://www.mbie.govt.nz/dmsdocument/15020-increasing-the-use-of-biofuels-in-transport-consultation-paper-on-the-sustainable-biofuels-mandate-pdf>

⁴² <https://www.certifiedenergy.co.nz/renewable-gas>

⁴³

<https://www.stuff.co.nz/travel/back-your-backyard/122296375/aucklandtowellington-sleeper-train-could-happen-without-kiwirail>

Advertising of air travel again should be banned so that people are not encouraged to take frivolous holidays far away. International travel should be for essential needs and connecting whanau. [Question 57]

35. There should be no new airports or airport expansions. Encouragingly, the UK Court of Appeal has ruled the plans to expand Heathrow airport illegal based on climate grounds⁴⁴. Still, the UK Climate Change Committee recently pointed out that the government has failed to include explicit ambition on reductions in the growth of aviation or diet change^{45, 46}. The committee described these as *“valuable options with major co-benefits and can help manage delivery risks around a techno-centric approach. They must be explored further with a view to early action.”* [Question 57]

Energy and industry

36. We are deeply troubled by the energy and industry section of the discussion document. It fails to recognise the root causes and significance of ecological overshoots which we have explained earlier. It is overly reliant on ‘renewable’ energies and technologies and industry driven false solutions, notably hydrogen, while failing to address energy poverty⁴⁷ and inequality⁴⁸.
37. Fugitive emissions must be stopped. It is good to see a mention of *“fugitive emissions, including from oil and gas venting and flaring, and geothermal operations...”* But there is no proposal to reduce such emissions. This is at odds with the advice from the International Energy Agency (IEA, 2021)⁴⁹: *“Reducing methane emissions from oil and gas operations is among the most cost effective and impactful actions that governments can take to achieve global climate goals.... Experience shows that countries can take an important ‘first step’ today based on existing tools, which may include prescriptive requirements on known ‘problem sources’ combined with monitoring programmes that seek to detect and address the largest emissions sources (‘super-emitters’)...”*
38. As mentioned earlier, the era of abundant, ‘cheap’ energy, i.e. fossil fuels, is over. A recent report by Prof. Simon Michaux from Geological Survey of Finland GTK revealed that⁵⁰, *“Replacing the existing fossil fuel powered system, using renewable energy technologies, for the entire human population is an even more enormous task than thought,”* and the *“Required extra energy and materials may form a bottleneck even if we could reduce consumption and material needs via circular economy and regulation.”* So renewable energy technologies cannot possibly provide the same amount of energy affordably or without additional environmental and social

44

<https://www.theguardian.com/environment/2020/feb/27/heathrow-third-runway-ruled-illegal-over-climate-change>

45 <https://www.bbc.com/news/science-environment-59045851>

46

<https://www.theccc.org.uk/wp-content/uploads/2021/10/Independent-Assessment-of-the-UK-Net-Zero-Strategy-CCC.pdf>

47

<http://www.healthyhousing.org.nz/wp-content/uploads/2015/04/Fuel-poverty-policy-and-equity-in-New-Zealand-The-promise-of-prepayment-metering.pdf>

48 <https://www.consumer.org.nz/articles/the-shocking-difference-in-electricity-prices-across-new-zealand>

49

https://iea.blob.core.windows.net/assets/465cb813-5bf0-46e5-a267-3be0ccf332c4/Driving_Down_Methane_Leakages_from_the_Oil_and_Gas_Industry.pdf

50

<https://www.gtk.fi/en/current/a-bottom-up-insight-reveals-replacing-fossil-fuels-is-even-more-enormous-task-than-thought/>

impacts, to support economic and productivity growth. These are the key challenges that an energy strategy must address. [Questions 58, 59, 69]

39. George Monbiot recently explained growth rather interestingly⁵¹: *“Economic growth is universally hailed as a good thing. Governments measure their success on their ability to deliver it. But think for a moment about what it means. Say we achieve the modest aim, promoted by bodies like the IMF and the World Bank, of 3% global growth a year. This means that all the economic activity you see today –and most of the environmental impacts it causes– doubles in 24 years; in other words, by 2045. Then it doubles again by 2069. Then again by 2093. It’s like the Gemino curse in Harry Potter and the Deathly Hallows, which multiplies the treasure in the Lestrangle vault until it threatens to crush Harry and his friends to death. All the crises we seek to avert today become twice as hard to address as global economic activity doubles, then twice again, then twice again.*

Have we reached the bottom yet? By no means. The Gemino curse is just one outcome of a thing we scarcely dare mention. Just as it was once blasphemous to use the name of God, even the word appears, in polite society, to be taboo: capitalism.”

40. And the Brit comedian Ben Elton, writing in 1993, in his novel ‘This Other Eden’, in a section titled ‘Dying of consumption’:

“...The one single and abiding criterion by which the success of countries is judged is in terms of their ‘growth’. Each year the great nations agonize over how much they have ‘grown’. How much more they have made, how much more they have consumed. Consumer confidence is actually considered a measure of a country’s relative economic strength. ...Consumption is synonymous with ‘growth’ and growth is good. It is always good, whenever and wherever. Hence, clearly consumption is good, all consumption, anywhere, anytime. Judged by the logic of world economics, the death of the planet will be the zenith of human achievement, because if consumption is always good, then to consume a whole planet must be the best thing of all.”

41. The notion of green growth asserts that continued economic expansion is compatible with ecological limits, as new technologies will enable us to decouple GDP growth from resource use and carbon emissions. This notion has emerged as a dominant policy response to climate change and ecological breakdown, despite the lack of empirical evidence to support it (Hickel and Kallis, 2019)⁵². The pathway for transition must clearly point out the wrongs of this notion and signal the need to degrowth. [Questions 58, 59, 69]
42. We do NOT agree with any government support for hydrogen development or carbon capture and storage (CCS is silent in the document). Just to reiterate, using hydrogen as energy storage is extremely wasteful because of the energy loss in the process. Green hydrogen is extremely expensive and is a bad waste of precious renewable energy. Hydrogen production, storage and distribution is fraught with safety and technical problems. Blue hydrogen⁵³ is reliant on fossil gas and CCS which has not delivered its promise other than allowing fossil fuel companies to greenwash their business. Government funding on trialling the transport of hydrogen in existing

⁵¹

<https://www.theguardian.com/environment/2021/oct/30/capitalism-is-killing-the-planet-its-time-to-stop-buying-into-our-own-destruction>

⁵² <https://www.tandfonline.com/doi/abs/10.1080/13563467.2019.1598964>

⁵³

<https://www.smithsonianmag.com/smart-news/blue-hydrogen-20-worse-burning-coal-study-states-180978451/>

gas pipe network⁵⁴ is an absolute waste of public money and time. It serves only to satisfy the fossil gas industry and support its propaganda⁵⁵ like “*you can change the world without changing much of yours...*” A Concept Consulting report⁵⁶ commissioned by the Gas Industry Co. places Ballance’s fossil gas demand for fertiliser production ahead of power generation all the way to 2035, without any signal of transitioning onto hydrogen, despite public money being poured into the latter. The report says to “*expect petrochemical producers (especially for methanol production) to remain as a foundation to underpin investment in reliable gas supply.*” The government’s funding for the New Plymouth Wastewater Treatment to replace its thermal dryer with one that runs on a hydrogen-fossil gas blend is another huge waste of money and effort to extend the reliance on fossil gas⁵⁷. The whole recent hydrogen debate here in Taranaki was completely hijacked by gas, fertiliser, dairy and freight companies to serve their unsustainable, polluting needs without considering everyone else’s needs for renewable energy, or the broader issues around export impacts on the environment and rising debt and decreasing freight ability due to Covid and international supply problems. [Question 68]

43. With climate policy starting to pose an existential threat to fossil fuel companies, “*hydrogen has emerged as a new tool for the gas industry to sow confusion and combat measures that would help homes and businesses transition to electric appliances,*” Earth Justice, 2021⁵⁸. Numerous studies have shown that deploying green hydrogen in buildings through the gas distribution grid is uneconomic, largely because of the superior efficiency of electric heat pumps. Because hydrogen can cause embrittlement of steel pipes and rubber seals to swell, pure hydrogen cannot be piped safely and reliably without blending with methane, hence perpetuating the reliance of fossil gas. Any costs of modifying the existing pipeline infrastructure to potentially carry hydrogen safely and with minimal leakage would be unfairly borne by end users.
44. The currently tight gas supply⁵⁹, attributed to “*Unexpected major problems at New Zealand’s largest gas field, Pohokura*”, is projected to be halved by winter 2021 and “*contribute to sustained high wholesale gas and electricity prices...*” This, exacerbated by an extremely unfair and purely profit-driven electricity market^{60, 61, 62}, is a major challenge to eliminating energy

⁵⁴ <https://firstgas.co.nz/news/hydrogen-pipeline-project-gets-government-funding/>

⁵⁵ <https://gasischanging.co.nz/?fbclid=IwAR0Zi6wT8197MKqCN8aGsEEzP9Qu8PQjraumh2yb1FKGekzNMTUU2IA3sWc>

⁵⁶

<https://www.gasindustry.co.nz/about-us/news-and-events/news/concept-consulting-gas-demand-and-supply-projections-2021-to-2035/document/7241>

⁵⁷

<https://www.stuff.co.nz/taranaki-daily-news/news/121996765/new-plymouths-wastewater-treatment-plant-gets-37m-for-new-thermal-dryer>

⁵⁸ https://earthjustice.org/sites/default/files/files/hydrogen_earthjustice_2021.pdf#:~:text=To%20reclaim%20hydrogen%20for%20a,on%20a%20renewable%20electric%20grid.&text=Green%20hydrogen%20is%20made%20using,split%20hydrogen%20from%20water%20molecules.

⁵⁹

<https://www.gasindustry.co.nz/about-us/news-and-events/news/concept-consulting-gas-demand-and-supply-projections-2021-to-2035/document/7241>

⁶⁰ https://www.ourclimatedeclaration.org.nz/economy_of_enough_webinar_6_and_webinar_7

⁶¹

<https://thespinoff.co.nz/politics/10-08-2021/government-takes-aim-at-commercial-decision-by-genesis-energy-for-blackout/>

⁶² <https://www.rnz.co.nz/national/programmes/ninetonoon/audio/2018809962/power-profits-up-for-big-five>

poverty⁶³ and ensuring access to affordable and secure low-emissions electricity for households (page 85). [Question 61]

45. Privatising NZ's energy industry has been a failed experiment. It's been an unmitigated disaster for the vast majority of Kiwis, directing public goods to private profit and rising costs due to minimal maintenance of infrastructure. What we need now is to nationalise⁶⁴ our energy industry and overhaul the electricity market for public good. The goal must be to supply electricity as an essential service on a non-profit basis, akin to a return of what it was before the foolish, neo-liberal reform in the 1980s and 90s. Any reform should be backed by independent research and analyses rather than industry-led investigations (p. 86). [Question 61]
46. Prof. Geoff Bertram explained that the central motivation of the previous reform was ideological⁶⁵ – *“the familiar neoliberal desire to shrink the public sector and privatise as much of it as possible... The risk from the outset was that market forces, once unleashed, might yield opportunism, rent-seeking, and monopolistic price gouging... Along the way, powerful vested interests have been created which now block the path to fixing the problems that have emerged... While productivity sagged, the industry's profits rose dramatically over the three decades of reform, on the back of a doubling of the electricity prices charged to household consumers (industry's prices barely changed while prices to commercial users fell)... In the context of the industry's failure to improve efficiency and the massive equity costs of the reforms, the only bright spot is that the lights have stayed on. With occasional hiccups... The hiccups, however, speak volumes about the effects of shifting from an engineer-driven to a profit-driven model... Confronting future needs for dry-year security of supply and decarbonisation of the economy will involve difficult policy choices in the face of well-organised and strongly funded rentier vested interests. The strength of the industry's position in opposing effective regulatory change is reinforced by the fact that part-privatisation has created an alignment of interest amongst the big industry corporate players, a substantial cohort of share-owning citizens, and a Treasury that continues to collect large sums in dividends and taxes from the profits that would be squeezed by regulation.”*
47. In respect of decarbonising industry, currently much of the wood pellets and wood chips used for process heating is from forestry waste. But industry experts have indicated that there is not sufficient of such waste to decarbonise industrial process heat at scale, and because much of the annual pine harvest is destined for export, more pine plantations and other purpose-grown fuel plants will be needed. This will undoubtedly create land use conflicts, even though phasing out log export would help a bit. So it'd come down to political will and priority setting to phase out or substantially downsize some industries, for the sake of a safe climate and liveable Aotearoa for present and future generations. [Questions 61, 62, 63]
48. It is absolutely critical that fossil gas is not treated as a transition fuel to phase out coal, because we can't afford to burn either anymore in a climate emergency. This, along with carbon capture

⁶³

<https://thespinoff.co.nz/business/29-07-2021/why-those-in-energy-poverty-should-be-angry-about-rio-tintos-latest-results/>

⁶⁴ <https://www.newsroom.co.nz/our-energy-system-has-been-broken-for-too-long>

⁶⁵ <http://www.geoffbertram.com/fileadmin/publications/IAEE%20Forum%20Problems%20with%20the%20reform%20electricity%20market.pdf>

and storage, and all 'colours' of hydrogen, are parts of the well-documented predatory delay campaign mounted by vested industry interests⁶⁶. [Questions 61, 62, 63]

Building and Construction

49. To facilitate the phase out of fossil gas, we support the Climate Change Commission's recommendation to end the expansion of fossil gas pipeline infrastructure, and earlier. We propose an end to all new fossil gas connections in all buildings by 2023 and the elimination of fossil gas use in all buildings by 2035. The government could provide subsidies to needy people, marae, communities and some small businesses while councils could offer loans to ratepayers⁶⁷ and free energy advisors to support them in energy conservation and transition off gas to alternatives, notably electric heat pumps. For some rural, low-income households and marae settings, establishing coppicing woodlots for space heating could be an option along with measures to maximize energy conservation and efficiency of the buildings. Farm scaled bioenergy from animal wastes like that harnessed by the award winning Lepper Piggery^{68, 69} in Taranaki is also well worth further investigation and support. [Question 72, 75]
50. It is good that embodied emissions are being considered as part of the process to encourage low-emissions buildings and retrofits. So-called tiny homes (up to 30m²) which inherently carry lower embodied emissions, are more affordable and relatively easy to build, and should be part of the mitigation strategy for our climate and housing crises. They could also have been part of Covid recovery and control by providing some of the much-needed dwellings for quarantine and self-isolation. [Questions 79]
51. The elephant in the room could be our log export industry. By exporting sixty percent of the 36 million cubic metres of logs that are cut in a year, mostly to China under an unfair Free Trade Agreement (2008), our own timber processing industry has dwindled, and our building industry is constrained by timber shortages and price hikes^{70, 71}. In 2018 alone, NZ imported 155,000 cubic metres of timber and logs⁷² as well as substantial amounts of special purpose timber and furniture^{73, 74}, notably from Canada, the US, Australia, Fiji and Indonesia. Pulling back our timber export and using what we have to build our own houses rather than having to import timber would significantly reduce the life cycle emissions of the building industry. It would also lower fossil fuel consumption and risk exposure to volatile timber prices and shortages, and revive a local industry along with skilled jobs. These would help capture the opportunity identified in the bioeconomy section (page 50) to reduce reliance on imported resources for greater resilience

⁶⁶ <http://www.terrenceloomis.ac.nz/latest-publication.html>

⁶⁷

<https://www.npdc.govt.nz/council/strategies-plans-and-policies/policies/nga-whare-ora-taiao-o-ngamotu-new-plymouth-sustainable-homes-voluntary-targeted-rate-scheme-policy/>

⁶⁸ <https://niwa.co.nz/publications/wa/water-atmosphere-4-march-2012/pig-power>

⁶⁹ <https://nzfetrust.org.nz/stories/steve-lepper-lepper-trust/>

⁷⁰

<https://www.stuff.co.nz/business/industries/124708510/builders-have-been-stockpiling-timber-as-they-brace-for-supply-shortage-builders-association-says>

⁷¹

<https://www.stuff.co.nz/national/politics/126038965/millions-of-cubic-metres-of-logs-leave-our-shores-every-year--all-while-we-remain-desperately-short-of-timber>

⁷² <https://www.mpi.govt.nz/forestry/new-zealand-forests-forest-industry/forestry/wood-product-markets/>

⁷³

<https://www.nzffa.org.nz/specialty-timber-market/headlines/timber-imports-mean-export-of-environmental-impacts/>

⁷⁴ <http://www.timber.org.nz/>

and encourage the use of methods and organic resources such as “*diversified high-value wood products for construction.*” [Question 82]

Agriculture

52. The three page agriculture section is a major disappointment. It lacks ambition⁷⁵ and real action. It remains export focussed and relies overly on a voluntary scheme (He Waka Eke Noa), on technologies, emissions pricing/trading and offsets⁷⁶. As for the Covid mandates for health reasons, the current government has enough public support (as evident from the last election and vaccination rates), to make some major changes to agriculture so it raises the question: why not? The control and power of the colonial farm industry in local, regional and national governance needs to be called out and shaken off. The older generations need to release the grip on younger generations trying to make meaningful change to in fact preserve some agriculture in the future for our tamariki rather than leave it to extreme weather events, debt forfeiture and failed shipping. The environmental movement is definitely heading to tackle this head on now, especially with the return of the far-right backers in Groundswell. The government needs to push harder for a real transition of the agriculture industry towards downsized, regenerative ag for local markets. There is a highly resourced, privileged and loud minority voicing opinions and spreading false information around climate policy, which like Covid deniers should be ignored and corrected. Climate activists are not also taking to the streets, as much as we would really like to, as we are trying to be responsible and not organise Covid super-spreader events. A large portion of the public backs strong climate policy so don't be put off by noisy white men in expensive tractors.
53. The question is raised again as to why the government persists in the GWP100 assessment of greenhouse gas emissions especially when methane has far worse impacts on a 10-20 year scale? We have less than ten years to seriously cut our emissions. We should cease using the GWP100 and shift to GWP10 or 20.
54. The government plans to use the MPI roadmap *Fit for a better world – accelerating our economy potential*⁷⁷ as ‘*the framework*’ for its climate-related work with the primary sector (page 98). We have already laid out the unequivocal problems of ecological overshoot and our export driven economy and the urgency of transformative change and degrowth in the earlier sections of this submission. These provide the framework we need to use, not a roadmap which aims to add \$44 billion in export earnings over the next decade from the primary sector, greenwashed by a weak biogenic methane reduction target and a measly increase in the number of jobs on offer, even though its update⁷⁸ listed a few interesting projects such as sustainable all-wool carpets and plant-based protein. [Question 88]
55. The new 2022 Aotearoa New Zealand Organic Sector Strategy⁷⁹ commissioned by Organics Aotearoa NZ offers a range of encouraging and worthwhile pathways for organic and organic-regenerative farming. Notably these include Māori founded Hua Parakore – “*the world’s first indigenous verification and validation system for Kai Atua*” and Calm the Farm which provides financial support and incentives to farmers who want to transition their farms to regenerative and organic systems. However, the strategy is also overly export-driven. We can't ignore the emissions resulting from the touted exports like organic liquid milk and infant formula

⁷⁵ <https://www.newsroom.co.nz/cop26/cop26-rod-oram-cop26-reaches-its-peak-final-day>

⁷⁶ <https://www.rnz.co.nz/national/programmes/ninetonoon/audio/2018818620/rod-oram-at-cop26-summit>

⁷⁷ <https://www.mpi.govt.nz/dmsdocument/41031-Fit-for-a-Better-World-Accelerating-our-economic-potential>

⁷⁸ <https://www.mpi.govt.nz/dmsdocument/45445-Fit-for-a-better-world-2021-progress-update>

⁷⁹ <https://drive.google.com/file/d/1H4GBhwbBy-YOkJS82lthX4UQgtYIVM8/view>

to China, frozen organic veggies to meet the US' trendy smoothie culture or organic meat for the world's growing appetite. According to the strategy, NZ is already the only country that exports most (58%) of its organic production compared with Australia (26%) and Denmark (19%). All too often such export driven ventures drive commodity prices up and deprive local communities from what they well deserve – affordable, fresh, nutritious, locally grown kai. Perhaps the targeted \$4.7 billion growth of organic exports, as part of MPI's targeted \$44 billion of export growth, will have some impact in slowing down the growth of conventional food export, notably dairy, although this is not a focus. [Questions 83, 86, 88]

56. Agriculture has huge potential in mitigating climate, regenerating soil health, cleaning waterways and strengthening community wellbeing and resilience, if we shift our focus away from the export dollars. If we continue down this road of endless economic growth reliant on increased primary production for export, we will continue to deplete our natural resources and cause irreversible socio-economic harm to our mokopuna. This violates Te Tiriti o Waitangi by taking away the mana of Māori, as kaitiaki of the land. It threatens food sovereignty which is widely defined as *“the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their rights to define their own food and agriculture systems”* and its six principles⁸⁰. As Tiriti partners both pakeha and major Māori enterprises that focus on export would need to redirect to local markets or get on sail boats. [Question 86]
57. We need to wean ourselves off the export addiction for both land-based agriculture and marine-based aquaculture, and instead focus first on nurturing our own communities and restoring environments. Urgently phase out fossil fuel-based chemicals and imported fertilisers and feeds, optimise not maximise production, downsize our farms, diversify our produce by incorporating tree crops⁸¹, regenerate our soils and protect our estuary and marine environments. All these will support domestic markets to nurture healthy, resilient communities. [Question 86]
58. We are strongly against any further research and development funding for technologies like methane and nitrous oxide inhibitors or vaccines. Over \$200 million of public money has already gone into agricultural emissions research, rather than the obvious solution of reducing the national herd size. Agricultural 'leaders' and the relevant government ministries have, with few exceptions, failed to understand the overarching issues, and remain in denial as to the unsustainability of their export-driven, high input, debt-laden, highly polluting, business model. Budget 2021 has allocated even more funding for such research. This is subsidising a polluting industry that has grown *“too big for its gumboots”* as some may say⁸² following the discovery of Dicyandiamide (DCD) nitrate inhibitor residues in Fonterra products and the botulism scare in 2013⁸³. The safety and efficacy of such technologies could elude us for a long while. Surely the amount of money would have been much better spent on the ground to actually reduce emissions by not just encouraging, but supporting, farmers and growers to undertake on-farm mitigation practices. Systematically documenting the ecological and socio-economic effects of such mitigation, especially land use changes, and enabling farmers and growers to share their lessons learnt and exchange their expertise would be extremely helpful. [Question 84, 85]

80

https://sicangucdc.org/blog/f/food-sovereignty-what-it-is-why-it%E2%80%99s-important-and-a-model?gclid=Cj0KCQiAhMOMBhDhARIsAPVml-HAfgLLMljD95mowlijqELoalFfHnZXtSDx7r5iZteTuYtF546hVYYaAvh3EALw_wcB

⁸¹ <https://treecrops.org.nz/about-nztca/about-treecrops/>

⁸² <https://www.stuff.co.nz/the-press/opinion/perspective/9005534/Fonterra-getting-too-big-for-its-gumboots>

⁸³ <https://www.stuff.co.nz/business/9059003/Injunction-stops-Fonterra-selling-in-Sri-Lanka>

59. In terms of reducing barriers to changing land use, we recommend consulting the *Land for the Many* (George Monbiot, Ed. 2019)⁸⁴ prepared for the UK Labour party. More specifically, the report recommended that the government support the creation of 'Community Land Trusts'. These trusts would be encouraged to buy rural land, for farming, forestry, conservation, rewilding and catchment protection, with a 'Community Land Fund' financed by surplus accumulated by the Land Registry. As mentioned already, it is far better to incorporate wildlife reserves and sustainable forestry with horticulture, animal farming, housing, local manufacturing and markets around thriving small towns rather than separating these into mega production areas with mega pollution, machinery and transport needs. This town planning model is still widely used across Europe which blends forests and farm villages around urban towns that have low land footprints due to narrow roads, good public transport and dense multi-level housing with well distributed shops and green spaces. [Question 87]

Waste

60. We support the Commission's recommended target to reduce waste biogenic methane emissions by 40 per cent by 2035 and encourage the government to set an even higher target. [Question 89]
61. In addition to funding for education and behaviour change initiatives, we urge that more support in terms of funding, enabling regulations, land and training be given to local community initiatives to turn organic wastes from households and small businesses into compost and animal feed. Such initiatives would also offer demonstration and education opportunities in waste minimisation, permaculture and local food resilience. Local community operations would reduce transport emissions and costs for users while offering local jobs. [Questions 90, 91]
62. The ban on the disposal of food, green and paper waste at landfills should be earlier than 2030, if there were alternative ways to manage it. The only exception may be for landfills that are able to turn the wastes into energy efficiently for local use^{85, 86}. [Question 92, 93]
63. According to figure 12 of the document, methane emissions from farmfills currently represent more than a third of the emissions from all landfills / farm dumps. It's projected to increase to about half of all landfills by 2050. Clearly this needs to be addressed, potentially with inputs from NIWA which has already done research around anaerobic digestion of animal wastes to produce biogas⁸⁷. Restricting water use on farms to wash down sheds would also reduce waste creation and encourage drier composting of waste which decreases emissions and discharges to waterways. [Questions 97, 98]
64. We caution that a market and profit driven model reliant on large operations to manage waste could perpetuate the waste problems and jeopardise waste minimisation efforts. Centralised operations⁸⁸ relying on waste being trucked for long distances are counterproductive. As just one example, it is a travesty that New Plymouth has been trucking kerbside-collected food wastes to Hampton Downs 300 km away since 2019, following Remediation NZ's failure to

⁸⁴ <https://landforthemany.uk/>

⁸⁵

<https://www.ipwea.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=ff294b43-4d4a-42e6-96ff-8336f622675d&forceDialog=0>

⁸⁶ <https://www.pmcsa.ac.nz/2019/11/05/modern-landfill-a-waste-to-energy-innovation/>

⁸⁷ <https://niwa.co.nz/energy/research-projects/biogas-recovery-from-wastewater>

⁸⁸

<https://www.nzherald.co.nz/rotorua-daily-post/news/new-zealands-first-food-waste-to-bioenergy-facility-gets-under-way-in-reporoa/AHNHBR3JPMTIWHNSTUGUBQXQSA/>

obtain resource consents to continue its polluting composting operation in the Uruti valley⁸⁹. The latter is testament to the Taranaki Regional Council's failing its duty to protect land and water from an irresponsible, profit-driven enterprise⁹⁰. Indeed noxious and hard to deal with wastes such as hydrocarbon drilling wastes, dairy and abattoir wastes and chicken factory carcasses, require special attention. Stringent control and oversight must be put onto operations that are supposed to safely manage them without harming the environment or neighbouring communities. The full costs must be borne by those who produce the wastes.

Forestry

65. An important piece of research has been published since the release of the discussion document. Tāne's Tree Trust demonstrated that *"well-managed planted indigenous forest is better at sequestering carbon and faster growing than commonly considered."*⁹¹ Notably data from planted forests of totara, kauri, kahikatea, rimu, other conifers, puriri, beech, and other broadleaves showed that *"growth rates of these native tree species increase steadily over the first 50 years achieving high productivity as well as carbon sequestration with age."* At the age of 50, carbon sequestration of such native species (18.2-29.9 tCO₂ha⁻¹yr⁻¹) is comparable with that of radiata pine (21-27 tCO₂ha⁻¹yr⁻¹). Native species have the added advantage over pine in terms of enhancing natural landscapes, cleaning waterways, providing for indigenous biodiversity and cultural values. [Question 114]
66. Forestry should be used to *"increase the ambition of our future international commitments"* rather than *"to provide a buffer in case other sectors of the economy under-deliver reductions"*. Our climate and ecological crises are so urgent that we must do everything we can to reduce emissions and sequester carbon, not to use trees and forests as offset under the ETS to allow polluting industries and activities to continue. [Questions 106]
67. Stock farmers who are willing should be paid to retire all or parts of their farms for tree planting. Flexibility and diversity of trees composed primarily of permanent native trees as continuous cover forests, but also native shrubs with potential commercial values (e.g. flax for fibre, manuka and other blossoms for bees), and incorporating exotic fruit and nut trees, coppicing⁹² timber and fodder trees could make planting or regeneration of native forest on private land more economically viable. Cattle naturally live in open forestland so the two could be incorporated in some places. For some smaller landowners, such as lifestyle blockers, who have no intention to profit from their land, support in terms of labour and suitable plants could well be all they need as incentives. [Question 108]
68. We are not convinced that land-use change into forestry would necessarily take away rural employment in a significant way, especially if a diverse range of forests is involved, especially continuous cover forests (both regenerating and new)⁹³, requiring species to be propagated,

⁸⁹

<https://www.stuff.co.nz/taranaki-daily-news/news/124994313/taranaki-councils-plan-to-build-regional-composting-plant>

⁹⁰

<https://www.stuff.co.nz/environment/300317060/controversial-north-taranaki-composting-company-declined-permission-to-continue-operating>

⁹¹

<https://pureadvantage.org/wp-content/themes/salient-child/documents/Carbon-Sequestration-by-Native-Forest%E2%80%93Setting-the-Record-Straight.pdf>

⁹² <https://www.conservationhandbooks.com/how-coppice-trees/>

⁹³

<https://www.nzffa.org.nz/farm-forestry-model/resource-centre/tree-grower-articles/may-2009/continuous-cover-forestry/>

planted, protected, maintained, monitored and felled. Associated new skills could include woodworking, ecological interpretation and cultural guiding, with government support to enable more relevant training and employment. [Question 107]

69. We do not support large-scaled mono-culture of any species, especially exotic species, or the planting of new exotic plantations to be on rotation with other exotic species or to transition onto native species. Given the long-term, multiple benefits of native species as demonstrated by Tāne's Tree Trust study, we urge the government to focus primarily on native forestry and do not encourage any new or expansion of exotic plantations. Support continuous cover native forestry and coppicing for firewood and animal fodder instead. There are other perennial purpose-grown fuel plants that may be considered on a farm-scale to supplement local use. As pointed out earlier under the Building and Construction section, if we stop or substantially reduce our log export (currently at 60 percent of all harvest), we'd have a considerable timber resource for domestic needs while our native forestry develops, and as we phase out or downsize industries that are hungry for process heat. [Questions 109, 110]
70. We do not agree that the ETS should be used to drive or influence forestry. We believe local people and iwi/Māori, with support from central and local governments, should determine the location and scale of native afforestation and regeneration. [Question 111, 113]

APPENDIX ONE

Toitu Taranaki 2030