New Zealand's second emissions reduction plan 2026-30

Climate Justice Taranaki submission, August 2024

Introduction

1. Climate Justice Taranaki (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. Composed of a broad range of people with different expertise and life experiences, CJT has engaged respectfully with government on numerous occasions.

2. Over the past decade and more, CJT has submitted on many consultation papers, policies and Bills relating to climate change, agriculture, forestry, transport, energy and the Emissions Trading Scheme (ETS). This submission on NZ's second emissions reduction plan 2026-30[2] builds on some of the earlier submissions which are referred to in the relevant sections below.

The Government's climate response – the five pillars

3. We support three of the five pillars: infrastructure resilience and community preparedness, affordable abundant clean energy, and nature-based solutions, with some caveats.

4. We do not support the heavy reliance on the markets for climate transition and techno-fixes for reducing agricultural emissions. Over the last 26 or so years, the ETS has failed to substantially reduce NZ's greenhouse gas (GHG) emissions because it has been systematically rorted, largely by over-allocation of credits to emission intensive industries[3]. It cannot be used as a pillar or "*as the primary mode for meeting the second emissions budget.*" Our concerns over relying on techno-fixes to address agricultural emissions are elaborated under the agriculture section.

The two principles

5. We disagree with the first principle which is driven by the **doctrine of economic growth**. Economic growth must and will stop because we live on a finite planet within biophysical limits. We simply cannot keep 'growing' by extracting, producing and burning fossil fuels, and wasting energy and materials without getting into deeper trouble. Globally we have overshot six of the nine planetary boundaries[4], beyond which we risk the future of humanity and many of the species we share this planet with. Economic growth is the key driver of these overshoots. To paraphrase Albert Einstein, we cannot fix the problem by continuing with the same approach we used when we created it.

6. Climate change is only one of these overshoots or crises that species including us face. "*We don't know how long we can keep transgressing these key boundaries before combined pressures lead to irreversible change and harm*," Johan Rockström of the Stockholm Resilience Centre, 2023[5]. Of the five planetary boundaries assessed in New Zealand, all have been transgressed: climate change, land-system change, biogeochemical cycles (nitrogen and phosphorus use), biosphere integrity (biodiversity loss) and freshwater[6].

7. In our view, the way forward is Degrowth[7] – a planned reduction of energy and material throughput to enable collective wellbeing within ecological limits, i.e. an economy of enough[8]. This requires reducing the overall energy and material demand, starting with the most polluting and frivolous, while investing more in what really constitutes wellbeing and resilience. Gross domestic product (GDP) merely measures the size of a nation's economy and does not reflect societal wellbeing[9]. For example, higher vehicle crashes raise GDP because more money must be spent to deal with them, yet they are not what healthy societies want. On the contrary, doughnut economics[10] and CLEVER (A Collaborative Low Energy Vision for the European Region)[11] offer valuable vision, rationale, and pathways forward.

8. We disagree with the second principle — **the 'net-based' approach** which seeks to "*balance the amount of greenhouse gases we produce with activities that take those emissions out of the atmosphere to reach our overall targets.*" We are long past the 'balance' point environmentally and socially, evident by the polycrisis[12] we are in. The 'net-based' approach to emissions calculations is flawed. It "*assumes that the release of carbon stored by ancient biology a hundred million years ago can be mitigated in the current active carbon cycle… The reality is that the long-term storage of carbon in plants, soils, geological formations and the ocean can only mitigate carbon from the current carbon cycle – not any extra fossil carbon"*, explained Prof. Mike Joy[13].

9. Worse still, using the net-based approach to help us meet the second emissions budget "***at least cost***" ignores the cost ramifications of not acting more strongly and earlier, such as the economic loss for not honouring the Paris Agreement on climate and various trade agreements[14]. It also ignores the co-benefits of many climate actions on other areas such as biodiversity, soil conservation and human health.

10. Crucially, at a time when resources (time and finance) are so limited, the focus on net-emissions undermines our efforts in reducing emissions at source. We urgently need to focus on **reducing gross emissions now** rather than creative accounting[15], delay tactics or walking back from our international commitments[16]. The more we do now and here, the less costly it will be in the future[17], [18], both in terms of losses from extreme weather events and crop failure here in Aotearoa, and the billions of dollars on carbon offsets overseas[19].

Energy

11. There are two elephants in the room here – i) Tiwai Point Aluminium smelter which uses 13 percent or more of our electricity at exceptionally low rates[20]; ii) Methanex which used over 40 percent of NZ's fossil gas until recently when it dropped to 30 percent and now closed down temporarily as it profits more from selling gas under certain "commercial arrangements" than making methanol[21]. The two receive over-allocations of carbon credits under the ETS amounting to billions of dollars[22], [23]. There are clearly ways to substantially reduce the total energy demand and associated emissions while providing a more equitable energy market and transition pathway, if only there is political will to deal with these industries.

12. We support doubling renewable energy by 2050, provided that robust safeguards for the environment and genuine public participation are ensured, and the energy is not used for wasteful activities such as to produce hydrogen for export. Such safeguards are already weakened by the substantial cuts in departmental budgets and staff, including the recent loss of 42 roles at the Environmental Protection Authority (EPA) which would severely undermine the assessment, compliance, monitoring and enforcement capacity of the organisation[24]. Crucially to facilitate meaningful emissions reduction, there needs to be an immediate end to all fossil fuel exploration while allowing existing production to deplete, and a strategic, planned reduction of overall energy consumption.

13. We support a focus on making electricity supply affordable, but it cannot be done by tinkering and implementing short-term fixes. The recent electricity price hike demonstrated the concentration of power among the four 'gentailers' who profiteered from energy scarcity[25], [26]. A **fundamental transformation of the electricity market** based on the advice of independent experts like Dr. Geoff Bertram is urgently needed, to restore energy equity, transparency and affordability for households, and to incentivise efficient renewable electricity generation and distribution[27], [28].

14. We also fully **support designing feed-in-tariffs** to incentivise household and community-scaled renewable electricity generation and distribution. More local renewable energy hubs would reduce the

burden on the grid and the associated emissions due to transmission loss which Transpower estimated to be 68 per cent in 2023[29]. Well-designed feed-in-tariffs and mechanisms that incentivise local energy production and reward consumers who reduce power use in times of shortage (e.g. in May this year)[30] should be implemented as priority actions, rather than for exploration as ideas. In addition, incentives and support for households and small businesses to electrify their homes and operations, by replacing existing fossil gas appliances, would help to remove a major barrier to electrification[31]. Regulatory, technical and financial support for building low carbon energy efficient healthy homes and upgrading substandard homes would help a great deal in conserving energy and cutting household expenditures.

15. We strongly **support regulatory measures to enable demand flexibility**, effective integration with electric transport and smarter electricity management and peer to peer sharing such as being planned for Aotea / Great Barrier Island[32]. There is growing interest from communities across the motu for community energy systems that are sustainable, resilient and affordable[33].

16. We are strongly opposed to creating "*an enabling environment for investment in gas production, including through enabling carbon capture, utilisation and storage* [CCUS] *to improve the investment climate for gas supply while lowering emissions.*" Our opposition is based on the urgent need to keep fossil fuels in the ground and the reality that **CCUS is a dangerous and expensive smokescreen** to delaying that. To date, there is no evidence that existing CCUS projects are effective in locking away meaningful quantities of CO_2 successfully for the long haul. The Institute for Energy Economics and Financial Analysis found that CCS has a long history of failure and underperformance[34]. The risks are made worse by the recent restructuring and job cut from WorkSafe[35]. Please refer to our recent submission to MBIE on CCUS[36].

17. The Parliamentary Commissioner for the Environment has **cautioned the push for 'green hydrogen'** and the opportunity loss associated with it, especially with hydrogen export[37]. While there may be a niche role in decarbonising difficult to abate industries such as steel making in NZ, using so-called green hydrogen to make urea fertiliser[38] perpetuates the multiple environmental and social problems of industrial agriculture and ignores the co-benefits of transitioning to more nature-based regenerative farming. Hydrogen transport is discussed in the next section. We do not agree with providing government support to private investment in hydrogen development. Our reasonings are laid out in our submission to MBIE on advancing NZ's energy transition (November 2023)[39]. We are gravely concerned that the Fast Track Approvals Bill, if passed, will allow hazardous hydrogen facilities and operations to go through, without the necessary check and balances, especially when institutional and regulatory capacity has been systematically weakened. Please refer to our submission on the Fast Track Bill[40].

18. **Offshore wind energy development comes with enormous costs burden on NZ**, notably for ports and transmission upgrade and expansion, as well as financial 'derisking' and enabling regulations for international developers. A recent UK report noted[41], "*perhaps more unique to New Zealand, will be the requirement for developers to advise and collaborate with the government on the support required to derisk projects and secure finance. In a market already heavily reliant on renewable generation, it will be critical for the government to provide the required level of certainty to developers to ensure projects remain viable.*" Because of a small domestic energy market (around 5 gigawatts), developers are keen to secure hydrogen export markets to boost the demand and potential financial return.

19. But offshore wind energy development, both in the coastal marine areas and in the Exclusive Economic Zone (EEZ), puts our already **heavily stressed coastal and marine environment and ecosystems** at ever

greater risk, considering the unprecedented ocean heating and die-offs that we are already experiencing[42]. We support onshore wind energy development but not offshore. Our submission in April 2023 laid out our rationale in detail[43].

20. We support small-scaled bioenergy generation such as on-farm anaerobic digestion of animal waste or municipal wastewater, or community woodlots for heating, and potentially wood pellets from forestry residue for emergency power generation. We do not support the use of bioenergy to produce so-called 'sustainable aviation fuels'.

Transport

21. While we support installing lots more public charge points for electric vehicles (EVs), potentially 10,000 by 2030, making this policy the 'pillar of the transport decarbonisation' without a comprehensive suite of other transport policies renders it an extremely weak and rather exclusive policy, favouring only those who can afford an EV. Adding a component of support for shared EV fleets[44] would make EVs more accessible, help reduce the number of cars on the road, lower the demand for minerals needed to make them and the associated mining impacts[45].

22. Our critique[46] on the Draft Government Policy Statement on land transport 2024-34 laid out our concerns over the extravagant spending on more and bigger roads, and called for much greater focus and investment into accessible and efficient public transport and infrastructure that supports safe walking and cycling.

23. We **do not support the government investing in hydrogen trucks**. Long-range electric trucks[47] are available to provide effective freight transport, especially when integrated with an improved rail network. Adjunct Prof. Susan Krumdieck of Canterbury University, a mechanical engineer and co-leader of the Global Association for Transition Engineering explained[48], "*Freight transport in particular would be more sustainable by shifting from road to rail, which can have 75% lower carbon dioxide emissions than road transport… It is feasible that New Zealand could have five times as many locomotives on an extensive electric rail network and take up at least 80% of the current truck freight. With that kind of network, intercity passenger travel could also be shifted significantly from roads onto rail*". The transition from diesel trucks to **integrated electric rail, coastal shipping and local electric delivery**, while requiring infrastructure investments, will deliver many skilled jobs, reduce road traffic and congestion, and make much better sense than hydrogen, in terms of energy efficiency, technological readiness and economics.

24. Aotearoa's emissions from **domestic aviation** per capita ranks fourth in the world despite our small size. A review published in the Journal of the Royal Society of NZ (2023)[49] concluded that a national aviation action plan based on the 'Avoid/Shift/Improve' framework is needed. While retaining the capacity for emergency and humanitarian aviation services, banning advertising of 'cheap' airfares would go some way to reducing the desire for non-essential flights. More investments into improving and **expanding our rail network and ferry services** would reduce our reliance on domestic flights and emissions significantly. So-called 'sustainable aviation fuels' require huge areas to grow fuel crops or vastly overbuilding renewable electricity to make hydrogen inefficiently, and risk exacerbating landuse conflicts while offering minimal emissions reduction. The recent abandonment of their 2030 climate goal by Air NZ is an indication of how unrealistic the reliance on SAF is[50].

25. We strongly support the Climate Change Commission's recommendation to include international aviation and shipping in the 2050 target, and to responsibly reduce the associated emissions.

Agriculture

26. The science of methane and climate change is well settled[51]. The government's review[52] on methane science and targets is yet another delay tactic when it should be acting in earnest on climate mitigation and adaptation.

27. The adamant push for **techno-fixes, mostly unproven, unavailable or not applicable to NZ** farming systems[53], could cost NZ hugely in terms of time, money and reputation. The risks on animal and human health associated with some of these technologies require thorough assessments and cannot be rushed. It is unwise and irresponsible to 'streamline' the approval processes for new mitigation tools and entry to GHG inventory for international reporting and market claims.

28. One low tech but surefire way to reduce significant amounts of emission is to **rewet previously drained peatland on farms**. Peat bogs, although amount to merely 1 per cent of NZ's soil, release 4-5 million tonnes of CO_2e a year[54]. Various other methods can be effective for maintaining or increasing soil carbon in other soil types[55]. Globally a total of 133 billion tonnes of soil carbon has been lost since farming began some 12,000 years ago, and the rate of loss has increased since the start of the industrial revolution[56]. Modelling showed that every year in Aotearoa, some 16.6-29.2 Mt of soil could be eroded away, costing $20M[57]. Surface erosion rates for winter-forage paddocks were substantially higher than pastoral grasslands, woody grasslands, forests and natural soil production rates. Little mentioned is the role of inorganic soil carbon and its vulnerability to irrigation and fertilisation which speed up the rate at which it leaches out of the soil[58]. While we cannot replenish all the lost soil and carbon, greater efforts in improving soil conservation and management would help to slow down soil and carbon loss.

29. Critically the **primary industry is extremely vulnerable to climate change** and extreme weather events. Farmers are already under tremendous pressure from debts amounting to $62 billion since May 2023, high interest rates and sky-high input costs, as expressed by Federated Farmers president this month[59]. A July 2024 survey revealed that confidence amongst dairy, sheep, beef and arable farmers is low and falling, with a third of the famers making a loss and 39 per cent only breaking even financially. The survey also revealed increasing difficulties in recruiting skilled and motivated staff as many farmers' children are abandoning the farms and visa schemes for migrant workers are changing. Most worryingly, half of the respondents signalled that mental health and wellbeing are being affected.

30. Under such crises, surely the hundreds of millions of dollars spent or committed (e.g. $191m from AgriZero) for techno-fixes on emissions would be far better spent on **supporting farmers to improve farm-management and practices for resilience** economically and in the face of climate change. These include reducing inputs and stock, diversifying to incorporate crops, fibre and timber production, wetland and biodiversity restoration, and extension services to foster farmers' wellbeing through their climate mitigation and adaptation challenges. These would create numerous **co-benefits** rather than the loss of opportunities that the ERP2 proposals entail.

31. The government's commitment to introducing a supposedly "*fair and sustainable pricing of on-farm emissions no later than 2030*" is a delay tactic. The Climate Change Response (Emissions Trading Scheme Agricultural Obligations) Amendment Bill which removes agricultural emissions and reporting obligations from the ETS is testament to that[60].

Forestry and wood processing

32. The government's **heavy reliance on exotic pine forestry to offset emissions is irresponsible**. The push for more exotic forestry on class 6 and 7 lands[61] which are erosion prone is foolhardy. Iwi, hapū and local communities in Tai Rāwhiti Gisbourne region have suffered terribly from indiscriminate expansion of exotic forestry, which resulted in loss of homes and livelihoods during cyclones Hale and Gabrielle[62]. Eighty-eight per cent of the region's land is **erosion prone**, so soil loss has been phenomenal. Instead of more exotic forestry, the government should **support iwi Māori in transitioning from sheep and beef and pine plantations to more sustainable investments**, such as indigenous forestry to restore biodiversity and fruit and nut trees for the communities[63].

33. The Parliamentary Commissioner for the Environment has warned in May[64] that, "*A changing climate will force changes to what we do where on the land – and how we do it… **failure to confront land use issues** will not make them disappear – it will simply commit us further to degrading our environment*." The Our Land and Water white paper[65] *Why Pines*, "*highlights a need for more quantitative information on more land uses than those currently dominant (dairy, sheep and beef, and exotic forestry). We need to be able to model the economic and non-economic values, and scalable potential, of arable and horticulture land uses, and other less common and potential alternative land uses."*

34. The Climate Change Commission has cautioned over-incentivising exotic plantation which could result in a **fall of carbon price**. Exotic monocultural forestry is also susceptible to **pests and extreme weather events like fire**[66] and torrential rain associated with climate change. On the contrary, native forests are much more resilient. InInāia tonu nei (2021)[67], the Commission's advice on the first three emissions budgets and direction for ERP 2022-2025, the Commission asked the government to "*reduce reliance on forestry carbon removals and manage the impacts of afforestation*". We urge the government to consider this advice carefully and act accordingly.

35. We **support the government's proposal "*to limit the number of NZ ETS** registrations for whole-farm conversions to exotic forestry on high-quality productive land.*" The key word for us here is 'exotic'. Notably, a study by Tane Tree Trust (2021)[68] showed that **carbon sequestration for planted native forests** of totara, kauri, kahikatea, rimu, other conifers, puriri, beech, and other broadleaves is in the range of 18.2 to 29.9 t CO_2 $ha^{-1}yr^{-1}$ at age 50 years which is comparable to that of pine.

36. We would thus like to see **priority support given to indigenous rather than exotic forestry**, including on retiring farmland, and especially to Māori landowners. In terms of partnerships for "*native afforestation on Crown land (other than national parks)…*", Māori organisations should be given the first right, rather than the private sector at large.

37. We **support incentivising forestry and wood processing**, with the intention to replace higher emissions building materials and produce wood products needed in NZ. We are concerned that too high a priority is given to exotic planting over indigenous species, the latter offer biodiversity and ecosystem services that exotic plantations cannot. Many farmers are already planting native trees and restoring ecosystems on their farms. Such efforts ought to be recognised, supported and multiplied across Aotearoa for climate and biodiversity gains.

38. In terms of wood processing for multiple uses, the government need to provide funding for training, apprenticeships and innovation and more support to Māori in working with native species timber. Investments into **rebuilding a timber-based manufacturing industry** rather than relying on exporting

logs and importing finished products would create real boosts to rural communities economically and in terms of jobs and wellbeing.

Non-forestry removals

39. The lumping of nature-based solutions like wetland restoration and on-farm vegetation with expensive and largely unproven or ineffective technologies like CCUS and direct air capture, under the heading 'non-forestry removals' is unhelpful and confusing.

40. We **strongly support vastly expanding efforts in wetland and coastal vegetation restoration, marine ecosystem protection and-on-farm planting of indigenous species**, to help with carbon sequestration, but more importantly for regenerating biodiversity, ecosystem functioning and the associated cultural wellbeing. The ocean captures over 30 per cent of all CO_2 emissions which would otherwise be in the atmosphere trapping heat. The role of **'blue carbon'** - plankton[69], kelp forests and whales[70] etc - in helping to draw-down CO_2 is increasingly being recognised. It is essential that we protect and restore these ecosystems, rather than allowing seabed mining to destroy them[71]. In addition, mangroves and other coastal vegetation will become increasingly important for coastal stabilization as sea level continues to rise more rapidly and mega storms become more frequent in coming decades.

41. We are **strongly opposed to CCUS** as explained earlier. Direct air capture and enhanced rock weathering[72], [73] are yet more technological promises used to enable policy prevarication and undermining real mitigation efforts[74].

Waste

42. We **support more efforts being put into diverting organic materials from landfills**, e.g. funding and assistance for kai rescue[75],[76] and community composting initiatives[77], [78].

43. We **support the diversion of construction and demolition wastes from landfills** to reduce the emissions associated with producing virgin materials, and perhaps investigation in the potential of using organic wastes to produce lower emission cement[79], [80].

44. There is a role in landfill gas capture in certain cases, especially where the biogenic methane is turned into energy for local use.

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