

Submission of Greenpeace Aotearoa, Inc. on the Climate Change Commission's Draft Advice

INTRODUCTION

This is a submission by Greenpeace Aotearoa, Inc. on the Climate Change Commission's draft advice. Greenpeace is a global, independent campaigning organisation that acts to protect and conserve the environment and to promote peace. Greenpeace is one of the world's largest and oldest environmental organisations, operating for half a century, since 1971, and now works in more than 55 countries. The New Zealand branch of Greenpeace (Greenpeace Aotearoa) was founded in 1974 and has grown to represent 35,000 financial donors and many tens of thousands of supporters.

Greenpeace has been working specifically on the issue of climate change for more than three decades.

Our vision is a world where people and nature are thriving - where our homes, schools, business and transport are powered by clean energy from the sun, wind and water; where our food is grown in ways that regenerate the land, store carbon in the soil, clean up rivers and bring back wildlife; where both the ocean and native forests are rebounding and teeming with life. Our vision is an Aotearoa where our children, grandchildren and generations to come can grow up safe from the threat of climate change.

Greenpeace welcomes the opportunity to submit on the Climate Change Commission's draft advice and thanks the Commission for their work. Addressing this existential crisis has never been more urgent. Climate change is already taking lives and damaging health, homes, food security, culture and livelihoods. It is already accelerating the extinction of the wildlife and wild places with which we share this Earth. Poor and marginalised communities are already suffering the most, despite being the least responsible for causing this crisis.

We have known about this looming catastrophe for decades. We have known who and what has been causing it, and we have had access to the solutions to prevent it getting to this point. This global disaster is a direct result of Governments around the world failing to stand up to those climate polluting industries and vested interests that are insistent on maintaining profits no matter the consequences. Globally, Government action, or inaction, over the next decade will determine the future for billions of people and the wildlife we share this planet with.

There is much that we do support within your advice and you will find this laid out in detail in this submission. However, Greenpeace does not, at all, support the Commission's currently very low level of ambition, its vision or its package of recommendations for Aotearoa's largest climate polluter - agriculture. Our main points and recommendations are summarised in the following section. Further evidence and detail are given in response to the consultation questions.

SUMMARY OF KEY ISSUES AND RECOMMENDATIONS

Ambition and pathway for emissions reductions

1. Greenpeace does not support the proposed level of ambition for reductions in biogenic methane and nitrous oxide.
2. Given the climate forcing power of methane, as well as agriculture's sizeable share of New Zealand's overall emissions profile, **Greenpeace calls on the Commission to recommend and advance a plausible regulatory pathway to achieve a gross biogenic methane reduction target of at least 30% by 2030 relative to 2010 levels** - which is the upper end of the global agricultural methane cuts that the IPCC says needs to happen by 2030.¹
3. Given that 94% of New Zealand's nitrous oxide emissions come from the agriculture sector² alongside agriculture's sizeable share of New Zealand's overall emissions profile, **Greenpeace calls on the Commission to recommend and advance a plausible regulatory pathway to achieve a nitrous oxide reduction target of 21% by 2030 relative to 2010 levels** - which is the upper end of the global agricultural nitrous oxide cuts that the IPCC says needs to happen by 2030.

We have known for over three decades that we need urgent action on the climate crisis. Time has run out for slow, incremental change. The Commission must advocate for the most ambitious action on agricultural climate pollution, rather than the bare minimum.

For agricultural methane the Commission has picked almost the lowest possible reduction targets (only 13.2% by 2030 relative to 2017 and only 24% by 2050). For the long-lived gas nitrous oxide the Commission has relied almost entirely on offsetting. The IPCC's best case scenarios still leave us with a 34-50% chance that we will overshoot 1.5 degrees, with dire consequences for people and the planet.³ In this context, and because Aotearoa is a wealthy and highly polluting (per capita) country,⁴ we must aim for the most ambitious emissions reductions, not the least.

Greenpeace does not support the Commission's proposal to rely on all sectors except agriculture to do the heavy lifting on cutting long-lived gases. As already stated, agriculture emits 94% of the country's nitrous oxide and there are already proven ways to reduce it, by reducing the number of livestock and the amount of synthetic fertiliser used.⁵ The Commission has provided no reasonable case for exempting our highest-emitting industry from doing its fair share to cut emissions.

Agricultural Package of Recommendations

1. Greenpeace does not support the package of recommendations for agriculture, because they do not contain a single, direct and tangible regulatory intervention on the sources of agricultural climate pollution.

¹ IPCC (2018) Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.
https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf

² Ministry for the Environment (2020) New Zealand Greenhouse Gas Inventory 1990-2018.
<https://www.mfe.govt.nz/publications/climate-change/new-zealands-greenhouse-gas-inventory-1990-2018>

³ IPCC (2018)

⁴ Ministry for the Environment & Stats NZ (2017). New Zealand's Environmental Reporting Series: Our atmosphere and climate 2017.

⁵ PCE (2016) Climate Change and Agriculture, Parliamentary Commissioner for the Environment (PCE)
<https://www.pce.parliament.nz/media/1678/climate-change-and-agriculture-web.pdf>

2. Greenpeace recommends that the final advice for Agriculture includes the following policy interventions:
 - a. A sinking cap on synthetic nitrogen fertiliser, which leads to its elimination from Aotearoa's primary sector by 2024.
 - b. A sinking cap on imported feed, which leads to its elimination from Aotearoa's primary sector by 2024.
 - c. A prohibition on all new dairy conversions.
 - d. A maximum stocking rate limit, which is set low enough so as to drive a reduction in the national herd to around 50% of current stocking rates by 2030.
 - e. That the agriculture sector enter the Emissions Trading Scheme immediately and with no subsidies, i.e. that they enter at 100% with no free allocation.

3. Greenpeace opposes:
 - a. Relying on better rural broadband and unproven and currently non-existent technologies such as methane vaccines, or incremental techno-fixes such as nitrous oxide inhibitors to cut emissions.
 - b. Relying on He Waka Eke Noa or any other unenforceable industry self-regulation, voluntary measures, or agreements.
 - c. Relying on possible regulation in other sectors - such as water regulations - to transform agriculture rather than direct climate regulation.

Direct regulations that cap or ban the sources of pollution are the most reliable, straightforward, fair, and proven methods of dealing with pollution. Greenpeace supports the Commission's proposal for direct and tangible regulations on the sources of climate pollution for other sectors, such as the ban on internal combustion engine vehicle imports and the ban on new coal boilers. Greenpeace can see no justification for allowing the agricultural sector to be exempt from such direct regulations. Nor is any justification outlined by the Commission.

The science is clear on what the sources of agricultural climate pollution are. They are, primarily, the number of cows and sheep, and the use of synthetic nitrogen fertiliser and imported feed such as palm kernel expeller (PKE).⁶ Therefore, it is clear that to give us the best chance of success in combating climate change, we need direct regulations to reduce these.

Greenpeace opposes the Commission's proposal that instead of implementing regulatory caps on the sources of climate pollution, we should rely on rural broadband, a non-enforceable industry agreement and unproven technologies. The Commission provides no evidence that these things can or will lead to less climate pollution.

On the other hand, there is incontrovertible, stark and widespread evidence showing that fewer cows and less synthetic fertiliser and imported feed, leads directly to less climate pollution.⁷ There is also significant evidence that non-enforceable industry agreements have repeatedly failed to protect the environment⁸ or human health⁹ in the past, and nothing to suggest that He Waka Eke Noa will be any different. We include a small selection of this vast evidence under the response to consultation question 16.

Furthermore, Greenpeace does not support the Commission's proposal that the dairy, fertiliser and wider agricultural industries will continue to avoid paying the full cost for the

⁶ MfE (2020).

⁷ PCE (2016).

⁸ Gamper-Rabindran, S. and Finger, S.R. (2013) Does industry self-regulation reduce pollution? Responsible Care in the chemical industry. *Journal of Regulatory Economics*, 43(1), Page 1.

⁹ Noel, J.K., Babor, T.F. and Robaina, K., 2017. Industry self-regulation of alcohol marketing: a systematic review of content and exposure research. *Addiction*, 112, Page 28.

historic and ongoing climate pollution these industries have, and are, making substantial private profit from. This is fundamentally inequitable and a glaring example of minority vested interests harming the collective commons in the form of climate pollution and stability and is in direct contradiction to the Commission's own stated ambition that "Aotearoa must have an equitable and fair transition."

A vision for a better future

1. Greenpeace recommends the Commission follow its own advice on the need for "transformational change" and apply this principle to agriculture in Aotearoa by **making tangible regulatory recommendations for cutting the sources of agricultural climate pollution.**
2. Greenpeace recommends the Commission update its vision for agriculture so that it sits within climate and biophysical limits, and is based on the latest science, rather than focussed on maintaining business-as-usual.

Cast your gaze to 2030 and New Zealand's rural communities are thriving. We have become the regenerative organic food basket of the world, and we're richer for it, in more ways than one. Rivers and streams are surrounded by regenerating bush, and native fish, birds and pollinators are thriving. Our food is healthier, our livestock are happier. Global demand for our new plant-based food industries is insatiable, just like our smaller offering of high-value organic meat and dairy products.

There are no more big irrigators, synthetic fertiliser trucks and muddy paddocks packed tight with cows. Instead our farms look more like an ecosystem - a few cattle, sheep and deer grazing under the shade of fruit, nut and timber trees. Veggies, grain and fibre crops thrive amongst the trees and animals. Coal-burning milk-drying factories have been replaced with packhouses, mills and plant-based food and fibre factories that run on clean energy.

Aotearoa is drawing down way more climate pollution than we emit. We have led the world in the transition away from climate-polluting ruminant livestock.

The above future is entirely possible and absolutely necessary. Unfortunately the Climate Change Commission's current vision for agriculture looks nothing like it.

The Commission states that "transformational change across all sectors" is needed, yet has put forward a vision for agriculture that is far from transformational. Instead, the Commission proposes a continuation of business-as-usual in intensive ruminant livestock production, with a little tinkering around the edges.

The Commission has proposed that we should keep ruminant livestock production as the dominant land-use in Aotearoa and continue to produce roughly the same amount of low-value milk and meat exports. **For Aotearoa to do its bit in fighting the climate crisis we must transform our primary sector away from monocultures of climate-polluting ruminant livestock and into high-value and diversified plant-based food, fibre and timber.**

This is also what our global trading partners want us to produce. The value of the New Zealand organic export market grew 42% between 2015 and 2018. The global market for organic grew 397% between 2000 and 2016 - a compound annual growth rate (CAGR) of 10.5%.¹⁰ Some estimate it will reach US\$679 billion by 2027, with an

¹⁰ Organic Association of NZ (2018) New Zealand Organic Market Report 2018. https://drive.google.com/file/d/1Q41QSO2gUIOfFrFdxI9Svf_JjSH-z72p/view

estimated CAGR of 17.05%.¹¹ In the European Union, the market for organics is growing faster than the area of production leading to high levels of imports. In Denmark for example, imports increased by 180% between 2008 and 2017; and by 20% in 2016-2017 alone.¹² To believe that Aotearoa can continue producing low-value dairy products long into the future is to ignore the trends we are already seeing in customer demand.

Transitioning our agriculture system towards increasingly plant-based, regenerative organic farming also has multiple co-benefits. A more ambitious vision for the farming sector could see the agriculture sector pivot from being Aotearoa's biggest climate polluter to becoming a climate solution. Regenerative farming increases carbon sequestration¹³ in soil and plant biomass primarily due to the incorporation of agroforestry, and the increase in soil carbon stocks commonly found on regenerative farms. The case for transitioning to regenerative organic farming is laid out in a separate briefing paper, attached.

¹¹ <https://www.prnewswire.com/news-releases/global-organic-food-and-beverages-market-is-expected-to-reach-us-679-81-billion-by-2027--says-absolute-markets-insights-300914140.html>

¹² Willer, H., Schlatter, B., Travnicek, J., Kemper, L., Lernoud, J., 2020. The world of organic agriculture. Statistics and emerging trends 2020. Research Institute of Organic Agriculture FiBL and IFOAM Organics.

¹³ As evidenced by the IPCC 2000 and the meta-analysis by De Stefano et al 2018 as well as individual studies: Liebig et al 1999, Palma et al 2007, Kramer et al. 2006, Bulluck et al. 2002.

THE SIX BIG ISSUES

Greenpeace supports the points laid out in the [joint submission guide](#) developed by Pacific Climate Warriors, SS4C, 350 Aotearoa, Generation Zero, Forest & Bird Youth, Oxfam, Zero Waste Network Aotearoa, The Rubbish Trip, Para Kore, Coal Action Network and SustainedAbility.

Greenpeace also supports the points laid out in the [Ora Taiao submission guide](#).

DETAILED CONSULTATION QUESTIONS

Consultation question 1 - Principles to guide our advice

Do you support the principles we have used to guide our analysis? Is there anything we should change, and why?

1. Greenpeace recommends the Commission include an eighth principle that reads: *“Businesses that profit from historic and ongoing climate pollution will pay for the bulk of the costs of mitigating and adapting to climate change.”*

The Commission has rightly considered how we ensure our response to climate change is an equitable transition. However, it has failed to apply this lens to those who are currently profiting by intensifying the climate crisis. The important principle that **polluters should pay** for the costs of mitigating and adapting to climate change is currently missing and must be incorporated.

Consultation question 2 - Emissions budget levels

Do you support budget recommendation 1? Is there anything we should change, and why?

1. Greenpeace does not support budget recommendation 1, because it is not ambitious enough.
2. Greenpeace recommends that the Commission set tighter budgets from now until 2035 which allow Aotearoa to emit fewer greenhouse gases.

Going hard and going early on gross emissions cuts gives us the best possibility of achieving targets but also affords us huge cumulative gains up to 2050 and beyond. As it is no longer possible to go early on climate change, we must go hard. There is no further time for delay.

According to the IPCC, early and substantial cuts in methane are critical to our success in averting the worst impacts of climate change.¹⁴ This is particularly important for New Zealand due to our emissions profile. Annual methane emissions make up 42.7% of New Zealand’s gross emissions.¹⁵ Per capita, New Zealand has the largest methane emissions in the world (0.6 t per person per year)—six times the global average.¹⁶

Consultation question 11 - Locking in net zero

Do you support our approach to focus on growing new native forests to create a long-lived source of carbon removals? Is there anything we should change, and why?

1. Greenpeace supports growing new native forests and preserving existing native forest ecosystems to build long-term carbon sinks.
2. Greenpeace strongly encourages **the Commission also recommend strong ocean protection measures** as a critical pathway to ensuring long-term carbon storage. These should include:
 - a. Immediate measures to prevent further damage to the seafloor carbon sink from bottom trawling, with a commitment to phase out all bottom trawling by 2025. Immediate measures to limit damage must include an

¹⁴ IPCC (2018)

¹⁵ Ministry for the Environment (2017) New Zealand’s Greenhouse Gas Inventory 1990-2016, Snapshot.

¹⁶ <http://landcareresearch.co.nz/science/greenhouse-gases/agricultural-greenhouse-gases/methane-emissions>

- immediate ban on bottom trawling seamounts and other similar features, freezing the trawl footprint at 2006-08 level, and implementation of a 'move on' rule.
- b. Protection of an ecologically representative 30% of the ocean in a network of the highest level of Marine Protected Areas - off limits to all human activities.
 - c. An inquiry into New Zealand fisheries management, to take a precautionary and ecosystems based approach, and immediate action to protect marine ecosystems from the most destructive activities by commercial fishing as in point 1.
 - d. A ban on seabed mining in New Zealand's EEZ and supporting a moratorium on deep sea mining at the International Seabed Authority.

Greenpeace supports growing new native forests to create a long-lived source of carbon removals. However, this is not the only approach to building long-term carbon sinking. The ocean is our biggest ally in the fight against climate change. It has already absorbed 30% of carbon emissions¹⁷ and 90% of the excess heat in the climate system since 1980.¹⁸ The ocean and particularly the seafloor is the largest carbon sink on the planet.¹⁹

The ability of the ocean to function as a carbon sink is under threat, as extractive industries, such as commercial fishing and mining destroy marine ecosystems. New research has shown that activities that disrupt the seafloor, namely bottom trawl fishing, but also potentially seabed mining activities, release the carbon stored safely in the deep, accelerating ocean acidification, thereby further reducing the ocean's ability to absorb carbon, as well as possibly adding to atmospheric emissions.²⁰ In fact, this research shows that, **globally, bottom trawling fisheries release more carbon annually than the emissions of all air travel in the same period.**²¹ The study also highlights that **countries with the largest exclusive economic zones (EEZs) can do the most to protect against climate change, by putting their seas off limits to bottom trawling.** New Zealand boasts the ninth largest EEZ in the world and our commercial fishing fleet still bottom trawls in both national and international waters.

The IPCC Special Report on Oceans and the Cryosphere in a Changing Climate, states, as its primary recommendation, that a climate response from policy makers should include a network of large scale marine protected areas, to *"help maintain ecosystem services, including carbon uptake and storage"*.²² It also recommends stronger management of commercial fisheries to take a precautionary and ecosystems based approach.²³ There are also increasing concerns being raised about the climate threat of seabed mining, as mining activities may upset the carbon stores in the deep and an extremely precautionary approach must be taken.

Building and maintaining long-term sources of carbon removals requires us to prioritise the protection of the ocean and ensure this important carbon sink is not jeopardised. In order to achieve this, and in line with the best science, the Climate Change Commission should therefore amend its draft to include the recommendations outlined above.

¹⁷ IPCC (2019) Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate. https://www.ipcc.ch/site/assets/uploads/sites/3/2019/11/03_SROCC_SPM_FINAL.pdf

¹⁸ Ibid.

¹⁹ Sala, E., Mayorga, J., Bradley, D. et al. (2021) Protecting the global ocean for biodiversity, food and climate. Nature. <https://doi.org/10.1038/s41586-021-03371-z>

²⁰ Ibid.

²¹ Ibid.

²² IPCC (2019).

²³ Ibid.

Consultation question 12 - Our path to meeting the budgets

Do you support the overall path that we have proposed to meet the first three budgets? Is there anything we should change, and why?

1. Greenpeace does not support the pathway for biogenic methane or agricultural nitrous oxide because they are not ambitious enough.
2. Greenpeace recommends the Commission provide a pathway that:
 - a. is more ambitious,
 - b. results in a greater reduction in ruminant livestock than the current proposed 15% reduction and instead aims for a 50% reduction by 2030,
 - c. includes a far greater amount of land-use change away from ruminant livestock farming and into native forest, horticulture and other plant-based and non-ruminant land-uses.
3. Greenpeace recommends making much deeper cuts to biogenic methane in these early budgets in order to set us on the pathway to achieving at least a 30% reduction by 2030 (on 2010 levels), with existing technologies.
4. Greenpeace recommends making deeper cuts to nitrous oxide in these early budgets and not relying solely on offsetting.
5. Greenpeace does not support the key transitions table 3.1, because it fails to identify land-use change as a key way we will reduce agricultural emissions.
6. Greenpeace recommends that a key transition is added into table 3.1 which reads: *“Land-use change away from ruminant livestock”*. This should begin in budget 1 and carry on through to budget 3 and beyond.

According to the IPCC’s 2018 report, the scenarios that give us the best chance of limiting warming to 1.5 degrees require emissions of methane to reduce significantly through the next 20 years. They state that: *“Limiting warming to 1.5°C implies reaching net zero CO₂ emissions globally around 2050 and concurrent deep reductions in emissions of non-CO₂ forcers, particularly methane.”*²⁴

Yet, this is not what the Commission has proposed Aotearoa will do. The Commission is only seeking to make biogenic methane reductions of 13% by 2035 (the lower end of the target range) and 24% by 2050 (the lowest end of the target range). This unambitious pathway does not fulfil our international obligations, and amounts to leaving the burden of future reductions of biogenic methane to future generations - this is unjust.

The Commission proposes that aiming for anything more ambitious than 24% by 2050 is reliant on unproven and, in the case of genetic engineering (GE), environmentally risky technologies. This is not accurate. There are proven ways to significantly reduce biogenic methane and nitrous oxide emissions that the Commission has failed to include in its analysis. They are fewer ruminant livestock and less synthetic nitrogen fertiliser and imported feed. These should be included in the key transitions along the pathway.

The former Parliamentary Commissioner for the Environment (PCE) reviewed potential technological fixes to the current intensive livestock farming model and found that nothing in existence could reduce emissions significantly. She made the point that fewer livestock would mean fewer emissions, stating that, *“It is axiomatic that the fewer sheep and cattle there are on a farm, the lower the biological emissions will generally be.”*²⁵

²⁴ IPCC (2018).

²⁵ PCE (2016).

The Zero Carbon Act target is to “reduce emissions of biogenic methane within the range of 24–47 per cent below 2017 levels by 2050 including to 10 per cent below 2017 levels by 2030.”²⁶ The Commission should have interpreted this to mean at least 10% by 2030 and, rather than aim to only meet that 10% reduction, the Commission should be aiming to make much deeper cuts in these early budgets in order to set us on the pathway to achieving a 47% reduction by 2050.

Furthermore, the Commission has proposed that the agricultural sector will not be responsible for reducing any nitrous oxide which will instead be offset. This is deeply inequitable given the sector emits 94% of all nitrous oxide in New Zealand and there are proven ways to reduce it (as above).

Consultation question 14 – Transport

Do you support the package of recommendations and actions for the transport sector? Is there anything we should change and why?

Greenpeace supports the analysis of the underlying drivers of emissions from our transport sector. However, the recommendations are not strong enough to address those drivers and are not specific enough overall. Furthermore, the Commission does not give adequate weight to the many co-benefits of increasing active and public transport, particularly for health and wellbeing. Being more specific about the recommendations will facilitate the Government implementing stronger policies more swiftly. The Commission should:

1. Specify that 80-90% of central government transport funding go towards accessible public transport, cycling, walking, rail and coastal shipping. This includes the NZ Upgrade Fund as well as the National Land Transport Fund. As the Commission acknowledges, we need a fundamental shift away from car-centric infrastructure towards strongly prioritising public transport, active transport and less travel. Infrastructure spending must reflect that strong change of priority.
2. Specify which tax changes it recommends. For example, removing fringe benefit tax exemptions on transport modes that cause emissions (e.g. utes, SUVs and car parks). Fringe Benefit Tax exemptions should instead support low emissions transport options (e.g. public transport tickets, bikes and electric vehicles).
3. Significantly increase the targets for walking, cycling and public transport use. We have such low public/active transport usage at present that “doubling” sounds impressive but doesn’t amount to much actual change. In fact, the target of doubling cycling by 2030 is lower than the growth rate we’ve got today. Targets should be set for the number of trips taken. For example, we should be aiming to be closer to cycle-friendly cities like Copenhagen, where around a third of all trips are made by bicycle.
4. Recommend the development of low-traffic neighbourhoods (see recommendations in [The Shared Path report](#) by the Helen Clark Foundation).
5. In addition to EV incentives, recommend introducing incentives for e-bikes. E-bikes have huge potential for replacing short to medium-length car journeys. They are also more affordable than electric cars and have health co-benefits.

Greenpeace supports the submission of Living Streets Aotearoa.

²⁶ Climate Change Response (Zero Carbon) Amendment Act

Consultation question 15 - Heat, industry and power sectors

Do you support the package of recommendations and actions for the heat, industry and power sectors? Is there anything we should change and why?

Greenpeace supports the overall direction of the recommendations for the energy sector. However, the recommendations are not specific enough overall and, in some cases, are too timid. Furthermore, the analysis does not consider the many co-benefits of community- and household-owned energy. Being more specific and more ambitious in the recommendations means the Government will be able to implement stronger policies more swiftly. The recommendations should include:

1. Provide grant funding for community energy schemes and zero interest loans for household solar.
2. Remove barriers to community energy projects and provide a “one-stop-shop” of information on how to develop community energy projects, as recommended by Aotearoa’s leading experts in the field.²⁷
3. Install solar panels on government buildings, schools and social housing.
4. Extend finance and support for home insulation and heat pumps with a goal that all 600,000 under-insulated homes are insulated in the next 10 years.
5. Update the Building Code so that all new homes are net zero, following passive house standards.
6. Build all new Kāinga Ora and KiwiBuild homes according to passive house standards, including clean energy generation, rainwater collection and greywater recycling.
7. Ban the issuing of new oil and gas prospecting and exploration permits onshore in Taranaki.
8. Ban the application for and issuing of new coal mining permits.
9. Revoke all unused fossil fuel (coal, oil, gas) permits and end all fossil fuel (coal, oil, gas) permit extensions.
10. Ban all new coal, gas and diesel infrastructure and phase out all existing coal, gas and diesel infrastructure by 2030.
11. Make our biggest polluters pay by immediately ending subsidies via free carbon credits.

Consultation question 16 – Agriculture

Do you support the package of recommendations and actions for the agriculture sector? Is there anything we should change, and why?

1. Greenpeace does not support the package of recommendations because they are nowhere near ambitious enough and do not contain a single direct and tangible regulatory intervention that would cut emissions at source from agriculture.

²⁷ Berka et al (2018) Policy Strategies for Inclusive Renewable Energy in Aotearoa (New Zealand), University of Auckland Public Policy Institute. <https://cdn.auckland.ac.nz/assets/auckland/arts/our-research/research-institutes-centres-groups/ppi/policy-briefings/policy-strategies-for-inclusive-renewable-energy.pdf>

2. Greenpeace recommends that the final advice for Agriculture includes the following policy interventions:
 - a. A sinking cap on synthetic nitrogen fertiliser, which leads to its elimination from Aotearoa's primary sector by 2024.
 - b. A sinking cap on imported feed, which leads to its elimination from Aotearoa's primary sector by 2024.
 - c. A prohibition on all new dairy conversions.
 - d. A maximum stocking rate limit, which is set low enough so as to drive a reduction in the national herd to 50% of current levels by 2030.
 - e. That the agriculture sector enter the Emissions Trading Scheme in 2021 and with no subsidies, i.e. that they enter at 100% with no free allocation.

3. Greenpeace does not support the Commission's proposal to:
 - a. Rely on better rural broadband and unproven and currently non-existent technologies such as methane vaccines, or incremental techno-fixes such as nitrous oxide inhibitors to cut emissions.
 - b. Rely on He Waka Eke Noa or any other unenforceable industry self-regulation, voluntary measures, or agreements.
 - c. Rely on possible regulation in other sectors - such as water regulations - to transform agriculture rather than direct climate regulation.

There are currently no climate-focussed regulatory or financial policies in place to reduce greenhouse gas emissions from agriculture in New Zealand. There is only a non-enforceable emissions target in the Zero Carbon Act and a plan to make the industry pay for only 5% of its emissions in 2025.

There is clear evidence that the higher the number of livestock, and amount of synthetic fertiliser and imported feed used, the higher the emissions become.²⁸ However, there is currently no prohibition on new dairy conversions in Aotearoa, no regulation on the amount of imported feed that can be used, no stocking rate limit and only an extremely high regulatory cap on synthetic fertiliser for pastoral agriculture of 190kg/ha.

The Commission has not recommended any new regulatory or financial instruments to deal with agricultural emissions.

This is despite the fact that:

- Agriculture is responsible for 48% of New Zealand's emissions. Its emissions have increased 17% since 1990.²⁹
- Since 1990, methane emissions from dairy cattle have increased 129%.³⁰
- The dairy herd is now New Zealand's largest emitter, responsible for 22.9% of all domestic emissions.³¹
 - o It is important to note that this statistic is not representative of the dairy industry emissions in full as it only captures emissions from the cows. It excludes emissions from the roughly 700,000 tonnes of coal burnt for milk dehydration annually,³² transport emissions and offshore emissions from deforestation for supplementary feed.
- Synthetic fertiliser's direct nitrous oxide emissions have increased 512% since 1990 and are now greater than those from the entire domestic aviation industry.³³

²⁸ MfE (2020). Page 4.

²⁹ Ibid. Page 11.

³⁰ Ibid. Page 179.

³¹ Ministry for the Environment 2020, Infographic - New Zealand's Greenhouse Gas Inventory 1990–2018.

³² Ministry of Business and Innovation, 2020. NZ Energy Quarterly Data.

<https://www.mbie.govt.nz/assets/Data-Files/Energy/nz-energy-quarterly-and-energy-in-nz/Coal.xlsx>

³³ MfE (2020). Page 41.

- New Zealand is the largest importer of Palm Kernel Expeller (PKE) in the world,³⁴ which is used almost solely for the dairy industry,³⁵ and is a key driver of deforestation and peatland fires in Indonesia³⁶ and, to a lesser degree, Papua.³⁷
 - o Based on MPI estimates on the greenhouse gas emissions per kilogram of PKE,³⁸ in 2020 alone³⁹ New Zealand's consumption of PKE accounted for 923,450t of CO₂-e.

Greenpeace Recommendation: A prohibition on all new dairy conversions and a maximum stocking rate limit.

New Zealand has experienced one of the world's highest rates of agricultural land intensification over recent decades.⁴⁰ Land in dairying increased by 46% between 1993 and 2012⁴¹ and dairy cattle numbers nearly doubled since the early 1990's from 3.84 million in 1994 to 6.49 million in 2015.⁴² This has occurred through an increase in conversions, many on marginal land, and an increase in the use of synthetic fertiliser and imported feed.

According to the PCE, *"The increased use of urea fertiliser has, along with irrigation and supplementary feed, enabled higher stocking rates."*⁴³ Since the 1990's the use of PKE has gone from virtually nothing to nearly two million tonnes in 2020⁴⁴ and the use of synthetic nitrogen fertiliser has increased six-fold.⁴⁵

There are still dairy conversions and increasing dairy cattle numbers occurring in parts of New Zealand. In Canterbury, the herd increased 3% between 2016 and 2017⁴⁶ and in the Mackenzie Basin a new conversion of ecologically fragile land into a 15,000 cow dairy farm is still ongoing.

This dairy intensification has caused agricultural emissions to increase. Between 1990 and 2016, agricultural emissions increased by 12% and MfE states the cause of this increase: *"This is primarily due to the national dairy herd nearly doubling in size since 1990 and an increase of over 600 per cent in the application of nitrogen-containing fertiliser during the same period."*⁴⁷

Supported by synthetic fertiliser, PKE, and this lack of Government regulation, the dairy herd has now swollen far above environmental and climate limits. The herd is so large

³⁴ IndexMundi. (2021). Palm Kernel Meal Imports by Country (1000MT).

<https://www.indexmundi.com/agriculture/?commodity=palm-kernel-meal&graph=imports>

³⁵ DairyNZ Economic Group. (2017). Feed Use in the NZ Dairy Industry. Pp. 24, 37-39.

<https://www.mpi.govt.nz/dmsdocument/20897/direct>

³⁶ Duke University. (2019). Palm Oil Not the Only Driver of Forest Loss in Indonesia.

³⁷ Yidi Xu et al. (2019). Annual Oil Palm Plantation maps in Malaysia and Indonesia from 2001 to 2016.

³⁸ Agresearch. (2015). Total greenhouse gas emissions from farm systems with increasing use of supplementary feed across different regions of New Zealand. <https://www.mpi.govt.nz/dmsdocument/28329-total-greenhouse-gas-emissions-from-farm-systems-with-increasing-use-of-supplementary-feeds-across-different-regions-of-new-zealand>

³⁹ Indexmundi (2021)

⁴⁰ Ministry for the Environment & Stats NZ (2017).

⁴¹ Kyleisha J. Foote, Michael K. Joy, Russell G. Death (2015) "New Zealand Dairy Farming: Milking Our Environment for All Its Worth".

⁴² Stats NZ livestock numbers tables retrieved from

http://archive.stats.govt.nz/browse_for_stats/environment/environmental-reporting-series/environmental-indicators/Home/Land/livestock-numbers.aspx

⁴³ PCE (2013) Water quality in New Zealand: Land use and nutrient pollution.

<https://www.pce.parliament.nz/media/1275/pce-water-quality-land-use-web-amended.pdf>

⁴⁴ Indexmundi, Palm Kernel Import graphs.

<https://www.indexmundi.com/agriculture/?country=nz&commodity=palm-kernel-meal&graph=imports>

⁴⁵ MfE (2017)

⁴⁶ Stats NZ <https://www.stats.govt.nz/news/canterbury-dairy-herd-rises-as-new-zealand-total-steadies>

⁴⁷ MfE (2020). Page 4.

now that emissions from just the dairy cows alone have surpassed the volume of emissions created by our entire transport fleet.⁴⁸

Greenpeace Recommendation: A sinking cap on synthetic nitrogen fertiliser, which leads to its elimination from Aotearoa's primary sector by 2024.

Synthetic nitrogen fertiliser is an artificial product produced using fossil fuel gas and a chemical process which artificially takes inert nitrogen out of the atmosphere and converts it into a reactive form that plants can use for growth. In New Zealand over 600,000 tonnes of synthetic nitrogen fertiliser is applied onto farmland annually.⁴⁹ According to the OECD, New Zealand has had the highest percentage increase in its use out of all of the OECD countries since 1990.⁵⁰

This extreme use of synthetic fertiliser has enabled the intensification of dairy farming. It has led to higher stocking rates and a substantial increase in the number of dairy cows.⁵¹ This has in turn increased the methane and nitrous oxide emissions from the dairy herd.⁵² Synthetic fertiliser is also a climate pollutant itself, notwithstanding its effect on intensification. It emits nitrous oxide and carbon dioxide when applied to land. Synthetic fertiliser's direct emissions have increased 512% since 1990 and are now greater than those from the entire domestic aviation industry.⁵³

Nitrous oxide is a very potent and dangerous greenhouse gas. It has 289 times more warming potential than CO₂.⁵⁴ It is the worst greenhouse gas for depleting ozone.⁵⁵ It should also be noted that synthetic nitrogen fertiliser is the leading cause in the breach of the safe planetary boundary for nitrogen, which scientists warn, like climate change, threatens the survival of humanity.⁵⁶ A growth in the use of synthetic nitrogen fertiliser has also been linked to an increase in nitrate-nitrogen in New Zealand's drinking water. Public health experts are warning of the link between drinking water nitrate and high rates of colorectal cancer in Aotearoa.⁵⁷

The Commission has provided no viable justification for its proposal to continue allowing the agricultural sector to emit this dangerous greenhouse gas with minimal reduction. There are proven, economically achievable and practical methods of reducing agricultural nitrous oxide. These are: reducing livestock numbers and reducing the use of synthetic fertiliser.⁵⁸

Greenpeace Recommendation: A sinking cap on imported feed, which leads to its elimination from Aotearoa's primary sector by 2024.

New Zealand is the biggest single country importer of palm kernel expeller (PKE), accounting for 25% of the global PKE trade.⁵⁹ PKE is one of the products produced as part of the palm oil industry, which is one of two leading causes of rainforest destruction in Indonesia. In the period 2002-2018 Indonesia lost 9,154,000 ha of untouched, natural

⁴⁸ Ibid.

⁴⁹ Statistics NZ, Infoshare LookUp tables.

<http://archive.stats.govt.nz/infoshare/ViewTable.aspx?pxID=e4b2f308-e80b-4157-931a-810effedd3a0>

⁵⁰ OECD (2008) Environment Performance of Agriculture in OECD countries.

⁵¹ PCE (2013). Page 16.

⁵² MfE (2020). Page 4.

⁵³ Ibid. Page 41.

⁵⁴ Intergovernmental Panel on Climate Change (2014) Climate Change Synthesis Report AR5

https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf

⁵⁵ <https://www.sciencenews.org/blog/science-public/nitrous-oxide-fingered-monster-ozone-slayer>

⁵⁶ Fields, S. (2004). Global nitrogen: cycling out of control. Environmental Health Perspectives, 112(10)

⁵⁷ Richards, J.S. (2021) Nitrate contamination in New Zealand drinking water and colorectal cancer risk. (In publication.)

⁵⁸ PCE (2016).

⁵⁹ Indexmundi, Palm Kernel Import graphs. Available at:

<https://www.indexmundi.com/agriculture/?country=nz&commodity=palm-kernel-meal&graph=imports>

or 'Primary Forest' and 24,972,682 ha of total tree cover,⁶⁰ an area larger than the UK. Plantations (palm and pulp) are the leading driver, together accounting for more than two-fifths of nationwide deforestation.⁶¹

Like synthetic nitrogen fertiliser, the use of PKE causes climate pollution in two distinct ways:

- Through the loss of critical carbon sinks and the emissions from the logging and burning of forest and peatland for the establishment of oil palm plantations.
- The emissions that occur from the intensification of livestock farming that happens as a result of the use of PKE.

Over one and a half million hectares of Indonesian rainforest were destroyed between 2015 and 2017. This was just one of the statistics included in an investigative report released last year by Greenpeace International, which documented extensive deforestation and human rights abuses by 25 major palm producers. Of the producers investigated, Fonterra's sole supplier of PKE, Wilmar, was found to be buying from 18 of them.⁶² This makes the New Zealand dairy industry's use of PKE inextricably linked to deforestation and human rights abuses.

PKE is used by farmers to artificially increase stocking rates by providing more food for the cows than what can be naturally grown on the farm. This intensification effect is not specific to the type of imported animal feed used. The increase in agricultural emissions that have occurred due to intensification have already been discussed and evidenced.

Greenpeace Recommendation: That the agriculture sector enter the Emissions Trading Scheme in 2021 and with no subsidies.

The Commission recommends that the Government "*Drawing on the work of He Waka Eke Noa, decide in 2022 on a pricing mechanism for agricultural emissions as is required by legislation that is suited to the characteristics of the sector and capable of supporting achievement of the emissions budgets and targets.*" - Point B, page 119.

Greenpeace does not support this recommendation as it continues to allow this sector to avoid paying the full costs of the climate pollution it is causing. This is inequitable. The corporations and individuals within the dairy, fertiliser and wider agricultural industry make substantial private profits from their climate pollution.

For example, one of New Zealand's largest landholdings⁶³ (used predominantly for dairy farming), Wairakei Pastoral, is owned by ten business people who mostly reside in Auckland. The two wealthiest owners feature on the NBR rich list and have a collective net worth of over one billion dollars.⁶⁴ It is deeply inequitable that these ten rich-listers currently pay nothing towards mitigating and adapting to the climate change their businesses are causing, while communities with high levels of deprivation and relatively minor contributions to climate change are already bearing the costs and the brunt of the crisis.

⁶⁰ Mongabay (n.d.). Deforestation Statistics for Indonesia. Accessed from:

<https://rainforests.mongabay.com/deforestation/archive/Indonesia.htm>

⁶¹ Austin, K, Schwantes, A, Gu, Y & Kasibhatla, P. (2019). What causes deforestation in Indonesia? Retrieved from:

<https://iopscience.iop.org/article/10.1088/1748-9326/aaf6db>

⁶² Greenpeace International (2018). The Final Countdown: Now or never to reform the palm oil industry retrieved from <https://www.greenpeace.org/international/publication/18455/the-final-countdown-forests-indonesia-palm-oil/>

⁶³ Kate Newton. (2019). New Zealand's Biggest 50 Landowners Revealed.

<https://www.stuff.co.nz/business/farming/116661441/new-zealands-biggest-50-landowners-revealed>

⁶⁴ NBR. (2020). Featured NBR Rich Lister: Mark Wybourn. NBR, New Zealand.

<https://www.nbr.co.nz/node/224743>

⁶⁵ NBR. (2020). Featured NBR Rich Lister: Trevor Farmer. <https://www.nbr.co.nz/story/featured-nbr-rich-lister-trevor-farmer>

Greenpeace recommends Point B, page 119, is replaced by the following statement: *“In order to ensure a just and equitable transition and response to climate change, the Commission recommends that the agriculture sector enter the Emissions Trading Scheme in 2021 at 100% with no free allocation.”*

The agricultural sector has had an extraordinarily long lead-in time to start paying for its fair share of climate emissions, and make subsequent changes to lower emitting land-uses and practices. The climate crisis is worsening and it is unjustifiable to continue to give this sector continued privileges within New Zealand's climate regulation.

The Interim Climate Change Committee (ICCC) stated that *“emissions pricing will encourage farmers to change behaviour by altering the economics of activities that reduce emissions.”*⁶⁶ Greenpeace suggests that the Climate Change Commission follow its predecessors' advice and recommend this emission pricing is implemented immediately, and without subsidies.

The extent to which pricing can achieve behaviour change depends on how much farmers or processors actually have to pay for emissions. The ICCC calculated that with a 95% free allocation; dairy farmers will pay one cent per kilogram of milk solids, cattle farmers one cent per kilogram of beef, and sheep farmers three cents per kilogram of meat. This translates into just \$14 per ha per year for the average dairy farmer and just \$6 per ha per year for the average sheep and beef farmer.⁶⁷ Clearly, these completely insufficient prices will be unlikely to drive any kind of on-farm or industry behaviour change towards lower emissions. Greenpeace recommends that the Commission advise that the proposed 95% free allocation be removed immediately.

The economic case for a transition away from high-input livestock production

It is both practical and entirely economically achievable to shift away from high-input monocultures of ruminant livestock. Organic and plant-based products are high-value sectors that are experiencing strong growth. However, due in part to a lack of government support in New Zealand, they have remained small sectors that have not yet achieved the economies of scale that would enable New Zealand to maximise value from these sectors.

According to Plant & Food Research: *“The opportunity for New Zealand is in manufacturing high-value plant protein foods, sourcing ingredient streams from trusted sustainable and diversified production systems that meet our future climate change challenges, and delivering premium products into the ‘flexitarian’ diets of our international customers.”*⁶⁸

Global growth in plant-based foods has been unprecedented in the past five years as illustrated below:

- UBS investment bank predicts that the global plant-based market will have a Compound Annual Growth Rate (CAGR) of over 30% up to 2025, and reach US\$50 billion by 2025.⁶⁹
- In the USA in the year 2017-19⁷⁰:
 - o Total retail sales of plant-based foods grew 17%. In comparison, total retail food sales grew just 2% in the same period.

⁶⁶ Interim Climate Change Committee (2019). Action on Agricultural Emissions. Available from www.iccc.mfe.govt.nz.

⁶⁷ Ministry for the Environment. 2019. Action on agricultural emissions: A discussion document on proposals to address greenhouse gas emissions from agriculture.

⁶⁸ Sutton K, Larsen N, Moggre G-J, Huffman L, Clothier B, Eason J, Bourne R. May 2018.. A Plant & Food Research report prepared for: MPI.

⁶⁹ <https://www.ubs.com/global/en/investment-bank/in-focus/2019/future-of-food.html>

⁷⁰ Cameron, B. and O'Neil, S., 2019. State of the industry report: Plant-based meat, eggs, and dairy. The Good Food Institute

- Retail sales of plant-based meat grew 23%, yoghurt by 55% and cheese 41%.
- Plant-based milk now represents 13% of the total retail milk market.
- European markets are also experiencing strong growth. In Denmark and Germany, the market for meat substitutes showed an annual growth of between 15–20% in 2016.⁷¹

Global growth in the organic food and beverage market is also strong and sustained;

- The value of the New Zealand organic export market grew 42% between 2015 and 2018.⁷²
- The global market for organic grew 397% between 2000 and 2016 - a CAGR of 10.5%.⁷³
- Some estimate it will reach US\$679 billion by 2027, with an estimated CAGR of 17.05%.⁷⁴
- In the European Union, the market for organics is growing faster than the area of production, leading to high levels of imports. In Denmark for example, imports increased by 180% between 2008 and 2017; and by 20% in 2016-2017 alone.⁷⁵

Finally, for reducing the number of cows, synthetic fertiliser and feed, the following studies show it is economically achievable:

- **Landcare Trust 2019**⁷⁶ - NZ modelling study - compared farms with varying stocking rates, fertiliser use and imported feed. It found that the farm with the lowest synthetic fertiliser use and the second smallest herd had the:
 - largest increase in profitability (29%)
 - an 18% reduction in greenhouse gas emissions and a 13% reduction in nitrate leaching
- **AgResearch 2009**⁷⁷ - Compared different dairy systems in the Waikato over three years. Farmlets compared varied in their intensity. It found the low-input system with the fewest cows per ha (no N fertiliser, no brought-in feed, stocking rate of 2.3 cows/ha) had :
 - The lowest greenhouse gas emissions, lowest nitrate leaching rates and the highest energy efficiency.
 - The highest milk production per cow.
 - The highest profitability when milk prices were low and maize prices were high.
 - The least financially risky in terms of profit due to fluctuating input prices.
- **Dairy NZ 2013**⁷⁸ - a 10 year in-field study compared a farm with no synthetic nitrogen application and a farm using 181/kg/ha/yr of urea. It found that:
 - In a system using no synthetic N at all: *"profitable milk production systems can be achieved without N fertiliser applications"*.
 - At lower milk price (\$4.60 kg/MS) the farm using no synthetic N was more profitable than the one using 181 kgs.

⁷¹ Tziva, M., Negro, S.O., Kalfagianni, A. and Hekkert, M.P. (2019) Understanding the protein transition: the rise of plant-based meat substitutes. Environmental Innovation and Societal Transitions.

⁷² Organic Association of NZ (2018).

⁷³ Ibid.

⁷⁴ <https://www.prnewswire.com/news-releases/global-organic-food-and-beverages-market-is-expected-to-reach-us-679-81-billion-by-2027--says-absolute-markets-insights-300914140.html>

⁷⁵ Willer, H., Schlatter, B., Travnicek, J., Kemper, L., Lernoud, J. (2020) The world of organic agriculture. Statistics and emerging trends 2020. Research Institute of Organic Agriculture FiBL and IFOAM Organics

⁷⁶ A.J. Litherland (NZ Landcare Trust), B. Riddler (E2M modelling), M. Langford (Fonterra), M Shadwick (DairyNZ) Finding a win-win for the farmer and the environment.

⁷⁷ Basset-Mens, C., Ledgard, S. and Boyes, M. (2009) Eco-efficiency of intensification scenarios for milk production in New Zealand. Ecological economics, 68(6), pp.1615-1625.

⁷⁸ Glassey, C.B., Roach, C.G., Lee, J.M. and Clark, D.A. (2013). The impact of farming without nitrogen fertiliser for ten years on pasture yield and composition, milksolids production and profitability; a research farmlet comparison. In Proceedings of the New Zealand Grasslands Association (Vol. 75, pp. 71-78)

- **Crowder and Reagonold 2015⁷⁹** - a global meta-analysis using the financial performance of organic and conventional agriculture from 40 years of studies covering 55 crops grown on five continents found that:
 - o Organic agriculture was significantly more profitable than conventional agriculture.

Greenpeace does not support: Voluntary industry agreements and He Waka Eke Noa.

Greenpeace is strongly opposed to any reliance on He Waka Eke Noa, which the Commission has recommended in points a and b in “Time-critical necessary action 4”. He Waka Eke Noa is a non-enforceable agreement between big agri-business and the government which has no financial or regulatory powers to ensure emissions are reduced. It’s essentially a long list of empty promises. We urge the Commission to heed the evidence that these kinds of agreements do not work to protect human or environmental health and to recognise that the industry signatories to this agreement have a vested financial interest in maintaining the status quo and will not change through voluntary means.

Greenpeace recommends the Commission completely remove reference to, and reliance on, He Waka Eke Noa from this draft advice.

Agreements like He Waka Eke Noa are a common tactic used by businesses that are causing harm, to block, dodge and delay regulations. They are an example of what is known in the literature as “industry-self-regulation.”⁸⁰ This tactic was invented and honed by the Tobacco industry for decades to deflect legislative action that would damage their profits.⁸¹

It’s a tactic that has already been used by the dairy industry here in Aotearoa to the detriment of the environment. In 2003, the Government signed an agreement with Fonterra called the ‘The Dairying and Clean Streams Accord’. It was a list of non-enforceable promises that Fonterra would voluntarily protect water from dairy pollution and it was used instead of strengthening regulatory protections. Nearly two decades since its signing and water pollution from intensive dairying has increased demonstrably.⁸²

Several other industries have also attempted to avoid government regulation and placate concerned stakeholders by promising to reduce their environmental impacts voluntarily.⁸³ **There are few, if any, examples where industry self-regulation has worked for the public good. Instead, there is now substantive evidence that industry self-regulation is ineffective and fails to protect environmental⁸⁴ or human health.⁸⁵**

Additionally, the very companies and lobby groups that have signed onto He Waka Eke Noa already have a long history of denying, avoiding and delaying action on climate change. Specifically, in the early 2000’s this sector fought against the proposed tax on

⁷⁹ Crowder, D.W. and Reganold, J.P. (2015) Financial competitiveness of organic agriculture on a global scale. Proceedings of the National Academy of Sciences, 112(24), pp.7611-7616.

⁸⁰ Lisa L. Sharma, Stephen P. Teret, and Kelly D. Brownell (2010) The Food Industry and Self-Regulation: Standards to Promote Success and to Avoid Public Health Failures. American Journal of Public Health 100. Pages 240 and 244

⁸¹ Ibid.

⁸² Ministry for the Environment & Stats NZ (2017)

⁸³ Lenox, M.J. and Nash, J. (2003) Industry self-regulation and adverse selection: A comparison across four trade association programs. Business strategy and the environment, 12(6), pp.343-44.

⁸⁴ Gamper-Rabindran, S. and Finger, S.R. (2013). Does industry self-regulation reduce pollution? Responsible Care in the chemical industry. Journal of Regulatory Economics, 43(1), Page 1.

⁸⁵ Noel, J.K., Babor, T.F. and Robaina, K. (2017). Industry self-regulation of alcohol marketing: a systematic review of content and exposure research. Addiction, 112, Page 28.

methane emissions from livestock, dubbed the ‘fart tax’.⁸⁶ It then fought over decades to continue to be excluded from the ETS.⁸⁷ More recently, industry lobby groups have worked tirelessly to muddy the national conversation about the need to reduce methane emissions.

The climate doesn’t need more broken promises and delay tactics from agri-business, or more misplaced faith in polluting industries from the Climate Change Commission. It needs real regulations on the things that are polluting it. It needs the Commission to recommend that the Government implement a sinking cap on synthetic fertiliser and imported feed, a ban on new dairy farms, and a maximum stocking rate limit.

Consultation question 18 - Waste

Do you support the package of recommendations and actions for the waste sector? Is there anything we should change and why?

Greenpeace supports the points laid out in the joint submission from the zero waste community.

Consultation questions 21 Our Nationally Determined Contribution

Do you support our assessment of the country’s NDC? Do you support our NDC recommendation?

Greenpeace supports the submission of Oxfam New Zealand and the recommendations in their report [‘A Fair 2030 Target for Aotearoa’](#) (September 2020).

Consultation question 24 - Biogenic methane

Do you support our assessment of the possible required reductions in biogenic methane emissions?

1. Greenpeace recommends the Commission is more ambitious and increase its proposed methane reduction targets to at least 30% relative to 2010 levels by 2030 and at least 47% by 2050.

The Commission is proposing that we reduce our biogenic methane emissions by at least the global average. But we must aim much higher than that. New Zealand has the highest per capita rate of methane emissions in the world and the fifth-highest emissions CO₂-e per capita. We have a responsibility as a highly polluting and relatively wealthy country to aim to go further and faster than the average, especially when it comes to methane. Therefore, our methane targets should, at minimum, be set at the highest end of the interquartile range. This means, a minimum methane reduction target of 30% by 2030 and at least 47% by 2050.

However, as Oxfam New Zealand notes, these ranges do not take into account New Zealand’s historic responsibility or relative economic position. It is highly likely that a “fair share” methane reduction target for New Zealand exceeds the top end of the interquartile range. Greenpeace supports Oxfam New Zealand’s recommendation that the Commission should publish and recommend to the Government a “fair share” 2030 target or target range in our NDC (nationally determined contribution), that reflects New Zealand’s outsized greenhouse gas emissions footprint and historic responsibility for causing climate change, as well as our highest possible ambition.

⁸⁶ https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=3521713

⁸⁷ <http://www.scoop.co.nz/stories/BU0911/S00811.htm>

We also want to highlight the following misleading statement that the Commission has included in its considerations: *“Aotearoa is one of the most greenhouse gas efficient producers of red meat and dairy products in the world.”* This statement does not adequately account for carbon losses arising from forest harvesting, deforestation and scrub clearance. Nor does it account for overseas deforestation to produce palm kernel expeller or the carbon used in drying milk or transporting imported feed and milk powder.

More importantly, being among the best at producing the worst, most climate intensive food and fibre products is not an excuse to lower our ambition in reducing biogenic methane. We also have no assurance the world will make the best-case scenario reductions in long-lived gases. To give us the best possible chance of keeping the world within 1.5 degrees, we should assume the worst-case scenario for reductions in the long-lived gases and subsequently be much more ambitious in reducing biogenic methane.

Aotearoa can and must lead the world in the urgent transition away from intensive ruminant livestock farming and into predominantly plant-based, regenerative, organic farming. Doing so would not only help transform our most polluting sector into a climate solution, it comes with a host of co-benefits, including cleaner drinking water, healthier rivers,⁸⁸ healthier soil,⁸⁹ increased biodiversity⁹⁰ and greater resilience to droughts, floods and pest incursion.⁹¹ All of this can be achieved alongside higher profitability for farmers, primarily due to vastly reduced input costs, diversified income streams, higher yields, and in some cases higher-value market access.

ENDS

⁸⁸ As evidenced in the meta-analyses Mondelaers et al. 2009, Gardner and Drinkwater 2009 and Kuyah et al. 2019 as well as individual studies: NZ Landcare Trust 2019, AgResearch 2009, Selbie et al 2017, Kramer et al. 2006, Thevathasan et al 2004, Allen et. al 2004, Palma et al 2007, Lockeretz et al. 1981.

⁸⁹ As evidenced in Dairy NZ 2013, Crowder and Reagonold 2015, Chavas et al. 2009, AgResearch 2009, Landcare Trust 2019, Reagonold et al 1993.

⁹⁰ As evidenced in the meta-analysis by Tuck et al 2014

⁹¹ As evidenced in: USDA 2013, Bulluck et al 2002, Lotter et al 2003, Holt-Gimenez 2002, Mader et al 2000, Lockeretz et al. 1981, Di Falco and Chavas 2008, Drinkwater et al 1995, , Zhu et al. 2000, Krauss et al. 2011, Hassanali et al. 2008.