### Response ID ANON-NZPP-D26A-N

Submitted to Climate action for Aotearoa Submitted on 2021-03-26 16:28:00

### Introduction

What is your name? What is your organisation (if applicable)?

Name (enter in text box):

Sonny Whitelaw: braidedrivers.org and climateandnature.org.nz

What is your email address?

Email (write into text box):

manager@braid.org.nz

In what capacity are you responding to this survey?

In what capacity are you responding to this survey? Select from the dropdown list.:

NGO

Add other/more than one capacity if applicable:

(Optional) Specify iwi/hap■ affiliation, or if a mandated representative specify iwi/hap■/pan-iwi organisation, M■ori-collective\* or M■ori organisation you represent.:

What part of Aotearoa are you from?

What part of Aotearoa are you from? Select from the dropdown list).:

Canterbury (Waitaha)

Please specify if you are from outside Aotearoa:

What is your age group?

55-64

Confidentiality and disclosure

Yes

How this consultation works

Do you want to continue with the consultation questions or do you want to submit a pre-prepared response?

I want to continue with the consultation questions

File upload:

No file uploaded

Are you here to tell us your one big thing?

Your one big thing:

Your one big thing::

We advocate for more attention being directed towards broad scale ecosystem restoration, particularly 'wet' ecosystems, rather than simply 'forests'.

On the land, we have lost around 90% of our wetlands. Restoring even a moderate percentage is an untapped opportunity to quickly sequester carbon in soils and peats.

Coastal oceanic ecosystems sequester far more carbon that some native forests. Mangroves, seagrasses and farming kelp forests as carbon sinks also offer an opportunity to meet our NDCs without going offshore.

Just one example is kelp. It grows many times faster than pine, does not need land, agrichemicals, pest and weed control, and freshwater, does not leach nitrates into waterways, cannot burn down or blow over, serves as a nursery for small fish, reduces ocean acidity in the immediate surrounding areas (ideal co-crop for mussels and oysters), and does not require carbon-costly harvesting and conversion and storage of carbon underground, if dropped in deep ocean.

https://climateandnature.org.nz/solutions/seaweed/ https://www.nature.com/articles/s41598-020-69258-7.pdf https://www.nature.com/articles/s41598-019-39982-w

The collateral benefits to protecting and restoring native ecosystems include services such as nutrient recycling and pollination, mahinga kai, and top of the list, reducing the risks of climate change impacts through EbA:

"Ecosystem-based adaptation (EbA) should be integrated into broader adaptation and development strategies to maintain and increase resilience and reduce vulnerability of ecosystems and people to adverse effects of climate change.

"Healthy and functional ecosystems help reduce climate change vulnerability and disaster risk by:

- Reducing physical exposure to hazards by serving as protective barriers or buffers and so mitigating hazard impacts, including in wetlands, forests and coastal ecosystems; and
- Reducing socioeconomic vulnerability to hazard impacts: sustain human livelihoods and provide essential goods such as food, fibre, medicines and construction materials, which strengthen people's resilience to disasters."
- "Examples of ecosystem-based disaster risk reduction include restoring coastal vegetated areas such as mangroves to protect shorelines from storm surges; managing invasive alien species linked to land degradation and that threaten food security and water supplies; and managing ecosystems to complement, protect and extend longevity of investments in hard infrastructure."
- Synthesis Report on Experiences with Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction CBD Technical Series: Convention on Biological Diversity https://www.cbd.int/article/biodiversityagainstclimatechange-1

### Do you want to continue with the consultation questions or would you like to end your submission here?

I want to continue with the consultation questions

### Our six big issues - intro

### Our six big issues - the pace of change

1 Do you agree that the emissions budgets we have proposed would put Aotearoa on course to meet the 2050 emissions targets?

Strongly disagree

### Please explain your answer (1000 word limit):

We disagree that the first three emissions budgets will place New Zealand on course to reach our 2050 emissions targets. The budgets depend on economics driven 'spontaneous technological change' which has not happened at the extent or pace presumed, and excessive reliance on exotic forestry at risk of extreme weather events including high winds and fire. We do not believe the pace of reducing biogenic methane and nitrous oxide emissions is anywhere near what is necessary, especially given the rapid increase in methane from permafrost and clathrates.

Rapidly reducing our biogenic methane footprint by changing the type of protein we grow would signal our commitment to reality, not just to satisfy a global carbon budget based on an agreement signed in 2015, which itself is based on climate projections that the IPCC have subsequently recognised as having been exceeded.

Permafrost and methane clathrates https://www.nature.com/articles/s41561-019-0526-0 https://www.nature.com/articles/d41586-021-00659-y). https://climateandnature.org.nz/climatefaqs/permafrost/

IPCC Special Report on the Ocean and Cryosphere in a Changing Climate https://www.ipcc.ch/srocc/ IPCC Special Report Global Warming of 1.5°C https://www.ipcc.ch/sr15/

### Our six big issues - future generations

2 Do you agree we have struck a fair balance between requiring the current generation to take action, and leaving future generations to do more work to meet the 2050 target and beyond?

Strongly disagree

# Please explain your answer (1000 word limit):

Our generation has had more than sufficient warning to make the necessary changes. More can be done, sooner, to ensure the futures of young people and later generations are not paying our rapidly increasing carbon debt. Proposed cuts will not limit global warming to 1.5C degrees; we are already on track for +2C degrees not taking into account climate feedback effects already underway, and irreversible tipping points. We must act faster.

Feedback effects and tipping points https://www.nature.com/articles/d41586-019-03595-0 https://climateandnature.org.nz/climatefaqs/tipping-points/ https://climateandnature.org.nz/climatefaqs/antarctica/https://climateandnature.org.nz/climatefaqs/greenland/https://climateandnature.org.nz/climatefaqs/arctic/

## Our six big issues - our contribution

### 3 Do you agree with the changes we have suggested to make the NDC compatible with the 1.5°C goal?

Disagree - our changes are not ambitious enough

#### Please explain your answer (1000 word limit):

We support recommendations to strengthen the NDC to make it compatible with 1.5C.

We disagree that a stronger NDC should be made through offshore mitigation. It is likely that large global businesses such as Shell and other counties will out-compete Aotearoa for limited land space to offset emissions.

While they may be relatively cheap now, in the near future New Zealand taxpayers should not be burdened with paying premium prices to complete with multinational conglomerates as the realisation that there is not enough land space to grow sufficient trees is realised, particularly as we are already selling carbon farming to offshore investors. Moreover, we have no control over the management of offshore carbon farming, some of which are dodgy and/or prone to the impacts of climate change, including wildfire.

https://www.greenpeace.org.uk/wp-content/uploads/2021/01/Net-Expectations-Greenpeace-CDR-briefing.pdf

We support a limit on offshore mitigation until all options to enhance permanent carbon sequestration through natural ecosystems, including blue carbon and wetlands, have been demonstrably exhausted.

We also support a moratorium on offshore investment in carbon farming unless income from this can be demonstrably shown to be invested in emissions reductions and/or innovation, including innovative strategies to protect native ecosystems from pest plants and animals.

### Our six big issues - role and type of forests

# 4 Do you agree with our approach to meet the 2050 target that prioritises growing new native forests to provide a long-term store of carbon?

Agree

## Please explain your answer (1000 word limit):

We support greater prioritisation of protecting existing forests and establishing new permanent native forests.

We support preferential establishment of new native forests using existing forests as nodes from which native forests can expand as far more cost effective and rapid, than planting new forests. Case studies of gorse fostering the regeneration of native forests, for example, have been clearly demonstrated, eg Hinewai Reserve, Banks Peninsular: https://youtu.be/3VZSJKbzyMc. We support strong disincentives being placed on the removal of naturally regenerating natives and where gorse is proving to be a nursery crop or the same.

We support a rapid move away from exotic plantations; the ETS does not properly account for their true carbon cost across multiple metrics including but not limited to fire risk, harvesting and transport, processing (either biomass or wood products) loss of soil biodiversity, reduction in soils sequestration of methane, loss of insect diversity, and post-harvest sediment flow into coastal margins where wetlands and blue carbon uptake could be hindered:

https://science.sciencemag.org/content/368/6494/967

https://www.nature.com/articles/d41586-019-01026-8

https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2486.2003.00631.x

https://static1.squarespace.com/static/5bb6cb19c2ff61422a0d7b17/t/5f45de7e245283495354e282/1598414557625/The+Aotearoa+Circle+Native+Forests+Report\_FINAL-https://blogs.ei.columbia.edu/2018/02/21/can-soil-help-combat-climate-change/

We are concerned that large emitters regard BECCS as a technological rationale for maintaining current emissions. Some forms of BECCS advocate planting fast growing trees to be burned for carbon to be sequestered.

Similarly, biofuels advocate growing non-natives. The nature of businesses is to aim for growth, hence they aim to increase demand as well as producing more product. History tells us that businesses will always advocate for and find legal and/or policy loopholes to enable this enhancement. We would advocate for Wilding pines and other weeds, not deliberately growing pines, as primary candidates for BECCS

We do not support a singular emphasis on native 'forests'. We support greater emphasis on a wider range of natural ecosystems for long term carbon storage, as per our 'one big thing'.

We support a rapid move to cease all land clearing for further agricultural intensification: "Since the 2012...over a hundred thousand hectares of true land-use change [has been] going on around wetlands, scrub being cleared, and dairy land-use intensification."

https://www.landcareresearch.co.nz/news/whats-happening-on-our-land/

We support rapid cessation of seabed trawling as this is releases more carbon in a year than the pre-Covid global aviation industry: https://www.nature.com/articles/s41586-021-03371-z

If bottom trawling is continued, its carbon losses must be added to the New Zealand's carbon budget outputs.

## Our six big issues - policy priorities to reduce emissions

### 5 What are the most urgent policy interventions needed to help meet our emissions budgets? (Select all that apply)

Action to address barriers, Pricing to influence investments and choices, Investment to spur innovation and system transformation

#### Please explain your answer (1000 word limit):

We support pricing to influence investment choices in native ecosystem carbon sequestration.

We support disincentivising activities that are carbon-intensive, by pricing at a faster rate than currently exists for emissions-intensive trade-exposed (EITE) industries. These industries must include the agricultural sector.

We would like to see a focussed marketing and communications strategies that capture the hearts and minds of the 'team of 5 million'. In order to accept major policy shifts that have major consequences across all sectors, and to inspire behavioural change, everyone must be able to understand, in clear quantifiable terms, the cost of not making changes fast enough. Not what it will cost by 2100 or 2050, but in the next decade, (ie, avoid future discounting). Advances in attribution science mean that more extreme weather events can now be directly attributed to climate change, and new econometric techniques help to quantify the dollar impacts. The monetary losses exceed the predictions of early models. Economically illegitimate claims from carbon-intensive businesses should be clearly refuted rather than placated.

As per Q3; we support a moratorium on offshore investment in New Zealand carbon farming unless income from this can be demonstrably shown to be invested in emissions reductions and/or innovation, and not just for corporate profit, particularly as many large forestry blocks are owned by offshore investors.

We support more ambitious budgets to drive investment in innovation. However, we also support a precautionary approach. For example, enhancing CO2 sequestration may involve mining raw materials such as olivine. There is a large quantity of olivine is in Red Hills near Nelson; mining it could potentially damage or destroy native ecosystems, releasing more eCO2 than ultimately sequestered (this may not be the case; it could be ingenious!) https://www.nature.com/articles/s43247-021-00099-6.

### Our six big issues - technology and behaviour change

6 Do you think our proposed emissions budgets and path to 2035 are both ambitious and achievable considering the potential for future behaviour and technology changes in the next 15 years?

Neutral

# Please explain your answer (1000 word limit):

We agree the current budgets are ambitious and achievable.

We disagree that hoped-for future behaviours and assumed technological changes, i.e., wishful thinking and speculation are built into the budgets, while dangerous feedback effects leading to increasing non-anthropogenic emissions, some already measurably underway, are not included in these same budgets (see references Q1 and Q2). Nor are certain negative behaviours such as bottom trawling are included in New Zealand's carbon budget.

Hence, the budgets are insufficient to grapple with the emergency. The budgets do not communicate the urgency. The budgets impose greater burdens on younger generations. The budgets position New Zealand as climate stragglers, aiming to do the bare minimum to meet a temperature target that now seems implausible. This is contrary to the Climate Change Response Act requiring actions be taken to global warming to 1.5C degrees above preindustrial levels.

We support an integrated approach to these principles that considers the actual costs of lost ecosystem services, and to leverage the co-benefits of restoring ecosystems, particularly to help manage the risks of climate impacts.

To credibly drive behaviour, budgets must include probable and extremely unpleasant outcomes. We appreciate that there is a carrot rather than stick preference to drive change, but the carrot clearly is not working.

Would you like to end your submission here, or move on to the detailed section of our consultation?

Not Answered

### Detailed questions on our advice

- 1. How we developed our advice
- 1 Do you support the principles we have used to guide our analysis?

Partially support

### Please explain your answer (400 word limit):

We do not support the continued use of the term 'low emissions'. This implies we can keep adding greenhouse gasses to the atmosphere when we need to rapidly reverse the trend before tipping points are exceeded.

### 2. Emissions budgets numbers

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

### Q2 Emission budget levels - Emissions budget 1 (2022 - 2025):

Not ambitious enough

### Q2 Emission budget levels - Emissions budget 2 (2026-2030):

Not ambitious enough

### Q2 Emission budget levels - Emissions budget 3 (2031-2035):

Not ambitious enough

### Please explain your answer (1000 word limit):

While we understand these budgets are designed to take a precautionary approach, we do not support the contention that they will enable warming to be limited to 1.5 C degrees above pre-industrial levels.

We do not support budgets that exclude the known impacts of behaviours such as bottom trawling, while including hoped-for future behavioural changes.

We do not support budgets that include presumed technological innovations that cannot be quantified, while simultaneously excluding non-anthropogenic greenhouse gas emissions on the basis that these emissions cannot be fully quantified. Discounting these additional emissions does not mean their impact will be any less real.

### 3. Breakdown of emissions budgets

# 3 Do you support our proposed break down of emissions budgets between gross long-lived gases, biogenic methane and carbon removals from forestry? Is there anything we should change, and why?

### Q3 - Gross long-lived gases:

Not ambitious enough

### Q3 - Biogenic methane:

Not ambitious enough

# Q3 - Forestry:

Not ambitious enough

### Please explain your answer (1000 word limit):

We support separating biogenic methane as it illustrates the need to rapidly convert a significant proportion of primary production, particularly dairy, to less e-carbon intensive production. This will help the public understand why this sector in particular will need financial support to make this transition and to source new offshore markets. For example: https://www.gminsights.com/industry-analysis/edible-insects-market

We do not support the manner in which carbon is accounted for in native and non-native forestry, for reasons outlined in Q4, and based on peer-reviewed research in that answer.

# 4. Limit on offshore mitigation for emissions budgets and circumstances justifying its use

### 4 Do you support budget recommendation 4? Is there anything we should change, and why?

Partially support

### Please explain your answer (1000 word limit):

We support limiting opportunities for offshore investment based on the rationale outline in Q3 above. However, it is unclear if this is the intent as it seems the wording could be read the opposite, way. We suggest re-wording for clarity.

### Enabling an enduring climate transition - intro

## 5. Cross-party support for emissions budget

# 5 Do you support enabling recommendation 1 on cross-party support for emissions budgets? Is there anything we should change and why?

Fully support

### Please explain your answer (1000 word limit):

Cross-party support would better enable the 'team of 5 million' to act in concert. We support politicians from all parties and indeed all elected officials being given a comprehensive briefing on the impacts to their portfolios/shadow portfolios of delayed action or inaction versus actions, ie cost/benefits.

We support politicians being held publicly accountable for decisions.

We support the establishment of a 'vote climate' budget portfolio.

### 6. Coordinate efforts to address climate change across Government

6 Do you support enabling recommendation 6 on coordinating efforts to address climate change across Government? Is there anything we should change and why?

Fully support

Please explain your answer (1000 word limit):

### 7. Genuine, active and enduring partnership with iwi/M≣ori

7 Do you support enabling recommendation 3 on creating a genuine, active and enduring partnership with iwi/M ori? Is there anything we should change and why?

Fully support

Please explain your answer (1000 word limit):

### 8. Central and local government working in partnership

8 Do you support enabling recommendation 4 on central and local government working in partnership? Is there anything we should change and why?

Fully support

### Please explain your answer (1000 word limit):

Recommendation 4a is essential. Legislation will be crucial to enable local government to implement the decisions, and critically, to ensure compliance. We support legislation that imposes significantly higher penalties for non-compliance and the resources to investigate and prosecute where necessary. Our current system means councils must weigh up the cost/benefit of actions. With stipulated outcomes, timeframes, and consequences of inaction, and resources to enable action, Councils often opt for inaction. Without solid regulatory foundations, this will continue.

With funding from Environment Canterbury, we are developing an information and networking hub: https://climateandnature.org.nz/ While the bulk of the site currently focuses on the science and existing policies https://climateandnature.org.nz/climatefaqs/ our goal is to work with communities and district councils to share actions, knowledge, and local resources https://climateandnature.org.nz/our-places/. For example, how the Te K
haka o T
haitara Trust in the Waimakariri district is responding to a projected rise in sea levels: https://climateandnature.org.nz/our-places/tuhaitara-coastal-park/

We acknowledge that protecting and restoring natural ecosystems is just one aspect of a hideously complicated suite of problems. However, the planet provided us with a complex interlinked life support system in which natural ecosystems played a pivotal role in regulating the climate. If we wish to have something resembling the Climate Change Commission's vision of the future, we must address biodiversity loss and climate change as dual parts of the same problem. https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review

The scientific as well as social and economic rationale for this argument is unequivocal: the planet's natural life-support system worked perfectly well before we broke it.

"Restoring a third of the areas most degraded by humans and preserving remaining natural ecosystems would prevent 70% of projected extinctions of mammals, birds and amphibians. It would also sequester around 465 gigatonnes of CO2—almost half of the total atmospheric CO2 increase since the Industrial Revolution." - https://www.nature.com/articles/s41586-020-2784-9.epdf

### 9. Ensuring inclusive and effective consultation, engagement and public participation

9 Do you support enabling recommendation 5 on establishing processes for incorporating the views of all New Zealanders? Is there anything we should change and why?

Fully support

Please explain your answer (1000 word limit):

A sound strategy is needed so that everyone can understand and work collaboratively to address climate change in ways that are best suited to them and their circumstances. Although there is a huge body of peer-reviewed information on the risk-multiplier effects of climate change and the urgent need to address problems such as to re-tooling the economy and equitably supporting social change, that information is largely inaccessible to the lay person. That's leading to fear and disempowerment, and in many sectors, denial and an understandable need to cling to a rapidly disappearing status quo.

To enable a truly informed democracy, all New Zealanders will need the tools to engage with their futures. We support not just incorporating community views, but firstly enabling communities to have informed views through an education campaign. Before seeking feedback, we suggest not simply inviting people to attend information and education evenings at the local town hall or to download and read documents. Many don't understand why going to that meeting or reading that document is critically important to them, especially if they are starting from a defensive position, such as dairy farming.

Don't simply send members from Civil Defence, council planners and engineers armed with maps and warnings. Instead, enlist local community members that understand the issues, have them work with community engagement teams to offer to speak to local groups, organisations, clubs, places of worship, and educational institutions of all types so that speakers are meeting people in places that are familiar and safe to their audience, on the audiences' terms. This enables the audience to be more receptive to the messages and better able to relate to the information relevant to them and their community. Arm these community speakers with a wide range of tools and resources so that, no matter the background or interests of their audience, everyone can understand how this is going to impact them, what actions they can take to respond, what tools and resources are available, and how to access those resources.

In spite of an otherwise remarkable and effective Covid campaign, gaps in communications across some sectors appeared during the partial lockdowns. We support using the knowledge gained from these communications' shortcomings to help inform a nation-wide climate change communications strategy.

## 10-11. Locking in net zero

10 Do you support our approach to focus on decarbonising sources of long-lived gas emissions where possible? Is there anything we should change and why?

Fully support

Please explain your answer (400 word limit):

We fully support while acknowledging that the current policies are insufficient to lock in net zero.

11 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?

Partially support

### Please explain your answer (400 word limit):

We support in full the focus on growing new native forests conditional on:

- emphasis being placed on natural ecosystems including wetlands, not just forests
- more emphasis placed on regenerating natives through an immediate cessation of agricultural expansion backed up by strong punitive measures
- greater support of natural regeneration around existing native 'hubs', as more cost effective and possible immediately, versus the short supply of seeds and long term strategy of planting entirely news forests.
- Rapidly cease ongoing destruction of existing native ecosystems including the invisible ones beneath the ocean

We recognise the challenges to this given the existing problems of weeds, non-native mammalian predators and invertebrates such as wasps. By their generalist nature, these species will likely flourish in a changing climate, further outcompeting more specialist natives.

We also recognise insufficient punitive measures are in place to prevent ongoing expansion of agriculture, particularly in dryland, grassland, and braided river ecosystems. In the very rare cases where offenders have been successfully prosecuted, the fines are trivial; just the cost of doing busines. The 2019 Dewhirst decision by the High Court, for example, has placed multiple braided river ecosystems at risk by legally declaring them not to rivers.

## 12. Our path to 2035

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

Partially support

Please explain your answer (1000 word limit):

We do not believe the budgets are strong enough for reasons previously outlined.

- 13. An equitable, inclusive and well-planned climate transition
- 13 Do you support the package of recommendations and actions we have proposed above to ensure an equitable, inclusive and well-planned climate transition, and is there anything we should change?

Support some of the actions

### Please explain your answer (1000 word limit):

It can only be equitable and fair when low carbon polluters are forced to pay the intransigence of high carbon polluters, given heavily discounted rates under the FTS:

https://www.stuff.co.nz/environment/climate-news/116695150/free-carbon-credits-worth-billions-will-continue-being-allocated-for-decades

### The direction of policy

### 14. Transport

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

Do not know

Please explain your answer (1000 word limit):

### 15. Heat, industry and power

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

Support all the actions

Please explain your answer (1000 word limit):

### 16. Agriculture

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

Support some of the actions

Please explain your answer (1000 word limit):

Agriculture must be included fully under the ETS otherwise we are not serious about reducing emissions. Putting a price on all agricultural emissions, including methane, nitrous oxide, and carbon dioxide send signals that would drive a move to alternative protein production and innovation as well as greater efficiency.

Innovation, including food additives such as kelp to reduce methane outputs, may help reduce emissions. But at the scale at which we currently farm dairy cows, that still means adding huge quantities of greenhouse gasses to an atmosphere already carrying more than it has since the Pleiocene. Given the inertia in the climate system, even without adding more greenhouse gasses, we're already in for sea levels were 10 to 20 metres higher and global temperatures 2 to 3°C warmer: https://www.rmets.org/event/pliocene-last-time-earth-had-400-ppm-atmospheric-co2

## 17. Forestry

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

Support some of the actions

### Please explain your answer (1000 word limit):

Under the ETS preserving existing native terrestrial and oceanic ecosystems is not sufficiently incentivised. Enabling native restoration around established native ecosystems is even less incentivised. We're in a ridiculous situation where it's more profitable for a landowner to spray and/or bulldoze nascent and regenerating native ecosystems and plant monoculture pine forests. Radiata pine is by no means carbon zero and never can be, for reasons outlined in Q4. It's just recycling the problem back to the next generation.

We support research into innovate and alternative building materials, for example carbon negative concrete and biocement: https://www.solidiatech.com/
https://www.biomason.com/

### 18. Waste

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

Do not know

Please explain your answer (1000 word limit):

### 19. Multi-sector strategy

# 19 Do you support the package of recommendations and actions to create a multisector strategy, and is there anything we should change?

Support all the actions

Please explain your answer (1000 word limit):

### 20. Rules for measuring progress

### 20 Do you agree with Budget recommendation 5 on the rules for measuring progress? Is there anything we should change any why?

Support all the actions

#### Please explain your answer:

We support the overall package.

We strongly support ways to include small lots of trees and regenerating vegetation into future target accounting.

### 21-23. Our Nationally Determined Contribution (NDC)

## 21 Do you support our assessment of the country's NDC? Do you support our NDC recommendation?

Do not support - not ambitious enough

### Please explain your answer (1000 word limit):

We agree that the NDCs are not sufficient to reflect the science and existing impacts of climate change. It is vital for our future that our targets and actions be much stronger much more ambitious. This is not just about ticking (selective) accounting boxes. This is an existential threat.

We do not agree that NDCs beyond 45% require simply 'a political decision'. If it is not the Commission's role to indicate what is necessary, whose is it? Part of the Commission's mandate is to inform politicians and hold the Government accountable for decisions or lack therof.

### 22 Do you support our recommendations on the form of the NDC?

Somewhat support

## Please explain your answer (400 word limit):

- (a) Disagree' 'greenhouse gases' are all greenhouse gasses. Biogenic methane is not an exception just because it's economically inconvenient to New Zealand, so this contradicts the next statement on biogenic methane.
- (b) Agree

## 23 Do you support our recommendations on reporting on and meeting the NDC? Is there anything we should change, and why?

Somewhat support

## Please explain your answer (400 word limit):

Offshore credits must not be filled with loopholes and exemptions lobbied by industry to the government. Offshore credits are often poorly regulated. Using them as a fallback position will reduce incentives to make strong behavioural changes. Passing our problems offshore is not an acceptable message when the government is asking all New Zealanders to make sacrifices, give up their expectations of things 'returning to normal' in order to enjoy something resembling a liveable future. It is socially, culturally and economically reprehensible.

https://www.nature.com/articles/d41586-021-00441-0

### 24. Eventual reductions in biogenic methane

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

Do not support our assessment

## Please explain your answer (1000 word limit):

We agree that NZ must reduce biogenic methane emissions, however the current target of 49%-60% by 2100 is completely untenable. Again, this signals entirely the wrong message to the bulk of New Zealanders who are already carrying the cost burden of rapidly declining ecosystem services, including drinkable water, primarily because of this sector. To now give this sector permission to delay reducing their contribution to an existential threat, in terms like 'may eventually need to' well past the date at which this threat will cause inconceivable damage, is both incomprehensible and in direct opposition to the notion that transition must be fair and equitable for all New Zealanders.

We acknowledge the agricultural sector is crucial to the current New Zealand economy. Past policies, including the drive to install 1.3 million biogenic

methane-producing machines in Canterbury in 2018 – more than double what was here 2003 – must now set a new direction, one that must be implemented with a speed that drives innovation and behavioural change.