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ECO Submissions to Climate Commission Draft Report -

28 March 2021

The Environment and Conservation Organisations of NZ/Aotearoa (ECO) is the national alliance of 47 or so organisations with a concern for the environment, conservation and sustainability. We respect Te Tiriti o Waitangi and seek to have humans take care of the environment and respect it too, for its own sake as well as for human benefit.

ECO has been involved in issues of public policy and governance, climate, energy, land-use policy, resource management, pollution and protection of biodiversity over many years since its formation in 1971-72.

We have long been concerned about the profound and long-lasting damage to biophysical systems, terrestrial and oceanic.

**Consultation questions**

*Please note – this is* ***NOT*** *the consultation form. This is a list of all the questions you will be asked to answer if you choose to make a submission.*

*Are you here to tell us your one big thing?*

*If you're here because you have one big thing to tell us, you can do that here. If this is all you want to provide by way of your submission, that's fine by us. We will consider all the submissions we receive.*

*Your one big thing:*

The Commission should recommend:

 Earlier, faster, fairer and more comprehensive greenhouse gas emissions reductions.

Our six big issues

Our six big issues - the pace of change

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

Strongly agree - Agree - Neutral - Disagree - Strongly disagree - Do not know Please explain your answer (1000 word limit)

ECO greatly appreciates the work of the Commission and the efforts the Commission has made to engage with the community. We appreciate the strain on Commissioners and staff of trying to both set up the Commission and to produce this Draft Report.

For several reasons ECO does not agree that the Commission’s recommendations will achieve the 2050 emissions targets (for long lived and short-lived gases) consistent with the goal of NZ doing its fair share to limit global temperature rise to 1.5C. The emissions reduction targets should be more ambitious, faster, and the proposed emissions cuts are too weighted to the future with not nearly enough to be done prior to 2030.

On the Climate Change Commission (CCC) recommended budgets, the 2050 target of net zero CO2-e emissions would have an unacceptably low probability of being met (only 40-60%). This is based on the IPCC 1.5oC report[[1]](#footnote-1) projections.

The Commission’s recommended budget is of 628 Mega-tonnes CO2-e for 2021-2030 (p155). This is too high and permissive. It is insufficiently ambitious. It allows about 200 Mt too much for the period, and is above, not below, the global average per capita emissions allowance. Given the greater commitment for early action by developed countries under the principle of “common but differentiated responsibilities and respective capabilities” that is central to the UNFCC and the Paris Agreement (eg article 4.3) New Zealand must take greater action. We should therefore make greater cuts than the average or the mean because we are richer, more responsible for the stock of emissions per capita, and because we have the capacity to change relatively faster than many bigger countries.

We have a moral obligation on the basis of our wealth and previous emissions (6 times the world average per capita) to make greater emissions cuts over this period, and to implement profound changes in our behaviour, habits, attitudes and values in the next decade and subsequent periods. Many of our politicians and big businesses have to now denied, delayed and procrastinated for so long that we now have no choice and no ethical integrity if we do not transform our ways. Ecosystems are failing, species are going extinct. The world is undergoing profound and irreversible changes and tipping points. We are in dual crises.

We should not allow ourselves to emit more than the world average, and we should reduce our emissions more than the average, given our history of emissions and our wealth.

According to the Commission’s Draft Report, the global average of emissions permitted would be 564 Mt CO2-e for 2021-30. ECO has seen the submission of the Lawyers for Climate Action who submit that the Commission has made a mathematical error and that in fact the figure should have been 485Mt, not 564Mt, which is part is due comparing gross and net accounting and is tied up with how exotic forestry is included[[2]](#footnote-2).

At the very least NZ should aim for a carbon budget that is our *fair share* of the reduction needed globally to keep temperature rise to 1.5C, so if we accept the Lawyer’s assertion there is an error, then their proposed budget of allowed emissions of 400Mt would seem reasonable, albeit needing a good deal of effort to achieve.

We should do better than average given our wealth and prior contributions to the stocks of emissions and heat already absorbed and in the oceans.

The Commission’s Terms of Reference (TOR), derived from the Zero Carbon Act and from the Paris Agreement, have been interpreted too narrowly by the Commission. Exclusions from consideration of anthropogenic emissions in the marine environment are not acceptable (albeit understandable given the pressure the Commission has been under). Marine emissions activities and sources have been omitted on the grounds that measurement and accounting are too difficult and are not part of agreed accounting.

**Marine:** As Commissioner Judy Lawrence noted in response to a question during a Commission webinar, the Paris Agreement **does** mandate consideration of the marine environment.

An article by Sala *et al,* published online in *Nature*, identified marine sediments as “the largest pool of organic sediment on the planet and a crucial reservoir for long-term storage”. (Sala et al, 2021, 3[[3]](#footnote-3)). Disturbance of this sediment by fishing trawling and dredging (not including impacts of seabed mining) releases an estimated 1.47Pg (= 1,470Mt) of aqueous CO2 emissions with unknown emissions to the atmosphere. Increased emissions of CO2 in the marine environment causes harm to most marine organisms with shells because of ocean acidification caused by CO2 dissolving in water to form carbonic acid which attacks calcium carbonate, but there are other adverse effects on biological processes and carbon cycling as well. Sala *et al* recognise the creation of marine protected areas (MPAs) as a significant nature based solution to tackling CO2 in oceans, with co-benefits of better biodiversity outcomes, and better outcomes over time for food supply as fisheries become more productive and more resilient with more protection.

Because greenhouse gas accounting mostly has not been done in the marine realm, there has been little pressure or incentive to include emissions from marine activities. In the same vein, there has been little research into the losses of greenhouse gases from the activities that destroy many other native habitats, ecosystems and soils.

We note that fellow Pacific Island countries the Marshall Islands and the Solomon Islands have proposed to the International Maritime Organization (IMO) that by 2025 shipping companies pay US$100 per tonne of CO2 equivalent their vessels emit[[4]](#footnote-4). The call has been made to the next meeting of the IMOs Marine Environment Protection Committee (MEPC) later this year

The two countries have recognised that a levy of US$250-US$300 per CO2 equivalent would be required by 2030 to create the incentive for transformational change. They propose to mechanism to ratchet up the levy over time.

The $100 levy would raise about US$91.9billion per year based on 2018 emissions levels. About half of the fund would go for adaptation and mitigation needs of climate vulnerable countries. The rest would go on research and development of new low or no carbon shipping technologies and a proportion on scheme administration.

**Climate change, methane, ocean warming and the cryosphere**

Climate impacts include unnatural processes caused by humans in the marine environment. The latter include the warming and/or freshening of the sea from rapid thinning, melting and lubrication and movement of, (freshwater) ice shelves and ice sheets.

As the IPCC notes in its special report on Oceans and the Cryosphere[[5]](#footnote-5):

“All people on Earth depend directly or indirectly on the ocean and cryosphere. The global ocean covers 71% of the Earth surface and contains about 97% of the Earth’s water. The cryosphere refers to frozen components of the Earth system1. Around 10% of Earth’s land area is covered by glaciers or ice sheets. The ocean and cryosphere support unique habitats, and are interconnected with other components of the climate system through global exchange of water, energy and carbon. The projected responses of the ocean and cryosphere to past and current human-induced greenhouse gas emissions and ongoing global warming include climate feedbacks, changes over decades to millennia that cannot be avoided, thresholds of abrupt change, and irreversibility.”

Further in A1:

**“Over the last decades, global warming has led to widespread shrinking of the cryosphere, with mass loss from ice sheets and glaciers (*very high confidence*), reductions in snow cover (*high confidence*) and Arctic sea ice extent and thickness (*very high confidence*), and increased permafrost temperature (*very high confidence*).”**

ECO has particular concerns that the proposed very weak unambitious methane targets will mean sluggish rates of methane emissions reductions and reduced incentives to work on and adopt innovations and better practices, changes of land use and so on. In our view, the level and pace of emissions reductions, particularly by agriculture, is far to weak and slow. We recommend that the Commission change its advice to up the recommended reductions in methane to accelerate emissions reductions in agriculture and from waste.

**Agricultural exceptionalism**

Agricultural interests have known for decades that climate destabilization from methane emissions is a huge issue and it is now high time that these emissions were reduced. There have been concerted campaigns by farming interests and primary producer interests as well as fossil fuel users to establish the successive narratives that climate change:

* is not real
* is real but not humans’ fault
* is real but that farming is the backbone of the nation’s economy and trade exposed and thus should not have to reduce emissions
* is real but there is no or little scope for changing biology so there is no alternative or scope for reducing emissions which come from the most efficient farming in the world
* agriculture should be granted exceptions and free allocations/exemptions because it is so special.

**Methane, oceans, hydrates and the cryosphere**

We understand that biogenic methane is not nearly as persistent in the atmosphere as CO2, but it is particularly potent while it is around. Increased methane levels causes greater absorption of heat and hence the acceleration damage to the cryosphere. That includes accelerated melt, thinning, and lubrication of Ice sheets and glaciers, and thus to freshening of the sea. Freshening of the Southern Ocean and other marine areas disturbs the deep ocean conveyor belt currents. Those then disrupt both the thermal and climate regulation and the nutrient distributions around the globe with impacts on biodiversity and on human lives and livelihoods.

One of the nonlinear shifts that ocean heating could set off is the release into gaseous form of methane clathrates/hydrates - solid methane held in under the sea. Retaining solid state methane relies on maintenance of a narrow range of pressure and temperature. If anthropogenic impacts from human activity disturbs this fragile set of conditions, then large seeps and escapes of methane could compound the problem, with run-away methane emissions. Already there are significant accelerating methane emissions from the thawing permafrost in the Arctic. Extra heating of the atmosphere and oceans will accelerate the breakdown of the cryosphere and attendant problems.

Perflourocarbons and related gases are especially potent greenhouse gases, albeit in small tonnages. Closure of the Tiwai Point Aluminum smelter will eliminate some of those gases, as well as liberating electricity for other transitional purposes.

Our six big issues - future generations

***Big issues question 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 agree - Agree - Neutral - Disagree - Strongly disagree - Do not know Please explain your answer (1000 word limit)*

**No, we strongly disagree.**

**The problem of inter-temporal equity is pressing**. With a few honourable exceptions, those of us except the young have known the need to take action since at least the 1990s. Though some of us have tried since the 1980s – or earlier – to get action, a vast number of us have variously denied, disputed and/or delayed taking action and the need to cut emissions. Vested interests have pushed back against attempts by scientists, ENGOs and others, including occasionally governments, for effective action. To often, politicians and those in power in industry and agriculture have acted to preserve the status quo and reckless behaviours of our producers and society. It is harder now than it would have been 30, 20, or 10 years ago – and more expensive and disruptive.

**The young are the first of the “future generations”** whose interests we were trying to protect – along with those of nature – back in the 1980s and 1990s. Many of those born in the 21st century are livid with preceding generations. They are, understandably furious or in despair at the lack of timely action. As the wonderfully articulate Greta Thunberg says, their elders’ massive harm and risk shifting onto their future and that of all life on the planet is completely unfair. Biodiversity losses are at crisis rates, irreversible harms and the tipping points are underway. Now we must take action and it must be urgent and effective at not only reducing emissions, but at shifting the basis of our economy, our consumption, our myopia.

ECO considers that equity demands that urgent action and emissions cut back are taken now and that the Commission amend its advice to increase the rate, pace and volume of reduction in emissions in first emissions budget period.

**The transition must be rapid but also just.** A just transition requires justice within society and between time periods. This requires that those most vulnerable be helped most and that those most responsible for the harms created help pay most.

Horizonal equity requires that those in similar situations are treated similarly, vertical equity that those most disadvantaged (and least responsible) are helped most.

That means that those not primarily responsible for the continuation of emissions should be helped with the transition, particularly those most effected and most vulnerable. As many others are saying in their submissions, the transition should ensure that marginalized communities and people with disabilities should be supported as well as workers who need to retrain or relocate. Pastoral agriculturalists, the fossil fuel industry and those who have obfuscated and denied, denigrated those who have done their best to push for action – we should not see them as victim but as reprehensible cost shifters and perpetrators. They have colluded with and pressed for ecocide.

Greenhouse gases physically and chemically involve both the accumulated stocks and the continuing rate of flow of emissions – or the reduction in these.

In this ethical situation we can also consider the stock of wealth of those who have benefited from emissions - especially those who have not taken action when they could, or who have actively obfuscated and obstructed action to reduce emissions. We can also consider incomes and structural and temporal disadvantage. In ethical terms, those who have accumulated wealth gained from GHG emitting activities have a moral obligation to help those most affected by climate change and by the sharp adjustments that now must be implemented.

ECO is aware that implementing ethically justified measures to achieve a just transition is difficult and that politicians will baulk at efforts to hold accountable those who blocked action. Such accountability is in practice extremely difficult to achieve and politically dangerous. For all that, it is incumbent on us all to develop the narrative of responsibility and accountability. We need also to debunk the self-congratulatory exceptionalism and self-importance of the primary producer sources of GHG emissions and others who aim to shift costs onto the rest of society.

Unwillingness to challenge the sacred cows – literally and figuratively - has been a hall mark of New Zealand governments, and must change. The Commission must be clear that agriculture cannot continue to freeload on everyone else. Dairy products are not a necessity for most. We should not be mislead into thinking that we must make false dichotomous choices, framed by the self-interested to corner people into thinking that we must exempt agriculture from policies because NZ dairy farms are so efficient. Between 1994 and 2017 dairy cattle increase by 70% (Statistics NZ, 18 April 2019, 10:45am[[6]](#footnote-6))- all during a period of discussion on climate change including methane.

No, we can, subject to water supplies, grow water melons, apples, avocados, bush, manuka and much more instead of dairy cows. The choice is not between destructive and more destructive dairying. Some dairy farmers of our acquaintance are already switching land use from ruminants to crops. We have not seen a GHG accounting of their switches, but at least the plants do not breathe out methane, they may be less destructive of soil and water quality and have some other advantages.

Research on GHGs and environmental and economic impacts of such land use switches would be extremely helpful in our transition to a low carbon future.

Our six big issues - our contribution

***Big issues 3. Do you agree with the changes we have suggested to make the NDC compatible with the 1.5°C goal?***

*Strongly agree - Agree - Neutral - Disagree (our changes are too ambitious)- Disagree (our changes are not ambitious enough) - Do not know*

*Please explain your answer (1000 word limit)*

We agree with and appreciate that many of your proposals are helpful, but we do not see that the changes proposed will allow us to achieve NZ’s NDC, and we do not consider that the NDC itself is sufficient.

Our six big issues - role and type of forests

**Big issues 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?**

Strongly agree - Agree - Neutral - Disagree - Strongly disagree - Do not know Please explain your answer (1000 word limit)

We really needed an option of “partly agree”. We agree that more native forest growth is needed, but not that this should necessarily be new forest.

We applaud the shift away from subsidising pine forests and we do agree that we need more native ecosystems including but not limited to native forests. The existence of co-benefits for the environment and society should be encouraged, and is in fact vital.

We quote below from Dinerstein, et al 2019[[7]](#footnote-7), the work of the scientists who launched the Global Deal for Nature. They make the case that restoration of natural biodiversity is vital but biological tipping points are upon us, and action must be taken in the next decade or it will be too late:

 “Research since then [the Paris Agreement] suggests that efforts to stabilize the climate and avoid the undesirable outcomes of >1.5°C warming will require a rapid reduction in land conversion and a moratorium by about 2035 (*2*). The most logical path to avoid the approaching crisis is maintaining and restoring at least 50% of the Earth’s land area as intact natural ecosystems, in combination with energy transition measures (*2*, *3*). Those measures by themselves will likely be insufficient and must be augmented by restoration to create negative emissions to offset the likely clearing and release of greenhouse gases that will occur until a 2035 moratorium can be reached. “

Natural ecosystems are key to maintaining human prosperity in a warming world (*4*, *5*), and 65% of Paris Agreement signatories have committed to restoring or conserving ecosystems (*6*). Intact forests, and especially tropical forests, sequester twice as much carbon as planted monocultures (*7*, *8*). These findings make forest conservation a critical approach to combat global warming. Because about two-thirds of all species on Earth are found in natural forests, maintaining intact forest is vital to prevent mass extinction (*9*). However, carbon sequestration and storage extends far beyond rainforests: Peatlands, tundra, mangroves, and ancient grasslands are also important carbon storehouses and conserve distinct assemblages of plants and animals. Further, the importance of intact habitats extends to the freshwater and marine realms, with studies pointing to least disturbed wetlands and coastal habitats being superior in their ability to store carbon when compared with more disturbed sites (*10*, *11*).

Opportunities to address both climate change and the extinction crisis are time bound. Climate models show that we are approaching a tipping point: If current trends in habitat conversion and emissions do not peak by 2030, then it will become impossible to remain below 1.5°C (*2*, *12*, *13*). Similarly, if current land conversion rates, poaching of large animals, and other threats are not markedly slowed or halted in the next 10 years, “points of no return” will be reached for multiple ecosystems and species (*13*). It has become clear that beyond 1.5°C, the biology of the planet becomes gravely threatened because ecosystems literally begin to unravel (*12*, *14*). Degradation of the natural environment also diminishes quality of life, threatens public health, and triggers human displacement because of lost access to clean drinking water, reduced irrigation of important subsistence crops, and exacerbation of climate-related storm and drought events (*15*)

(Dinerstein et al, A Global Deal for Nature: Guiding principles, milestones and Targets, Sci Adv, 2019: 5; eaaw2869, April 2019).

Ultimately we need to reduce emissions and fundamentally change our expectations and infrastructure from low cost energy to energy use reductions, conservation, refraining from some forms of consumption and fossil energy intensive activities, reduction and substitution of products and consumption patterns and methods, and changes in agriculture and horticulture, both to conserve energy and GHGs and to reduce the application of synthetic nitrogen.

On the issue of native forest planting, we would like to see the Commission identify the case for natural regeneration with help to landowners to keep stock, pests, weeds and pathogens out of areas that are established or degenerating or regenerating native ecosystems. If the data for measuring and accounting for this activity is not now available, then the Commission should prescribe research on the issue and encourage protection for so that such data can be recorded and used. LIDAR is likely to be adaptable for this purpose and as we understand it, has a high degree of capability for pasture so could perhaps be adapted for tracking growth of forests and recovering ecosystems as well as direct measurements of GHG emissions.

**Protection of Native Forests Example**: Some members of ECO, including of our Executive team (so note the declaration of interest), have close experience of a large (for the district) farm/conservation block, with high conservation values, extensive areas of “hollowed out” and degrading native forest which needs a great deal of fencing to keep it stock proof.

Original fencing was done to make use of natural water and so was designed to allow for sheep and cattle to access the creeks in the bush, but the farm management at the time was for light stocking rates. In some places those fences are nearly gone.

The gross revenue from the property is very low ($20k, barely enough to pay the rates) because so much of it is in mature and senescent kanuka forest and degenerating bush and there are large areas that are fenced off from stock but where the fences are decrepit and in dire need of replacement or significant overhaul.

The significant capital injection needed is not available from the property’s revenues, owner capacity has declined with age and decay. The leasee does not protect the fences.

In this situation, there is still a lot of regenerating but also degenerating native forest. Some of that degenerating could have that process reversed. A good amount of ecosystem recovery is possible, so it is protection from stock and weeds, not replanting that is needed since the natural source is and vectors are, nearly everywhere. Pest control is already underway.

It may well be that there are other landowners in the same situation.

Planting will require fences and weed control, but also would be much more expensive with the need to secure eco-sourced plants instead of allowing natural regeneration and to pay people or find volunteers to do the re-planting.

Natural regeneration is likely to be more authentic and to provide a richer biodiversity outcome than if plants are selected and planted and tended by people.

Often, such regeneration will provide benefits not only for climate (by arresting forest decline and GHG emissions) with the co-benefits of greater biodiversity, erosion control, and landscape and cultural benefits.

We agree that there is scope for encouraging planting of native forests in some places, but we understand that there are many other native ecosystems that could and should also be protected to recover.

Preventing GHG losses is more important than creating new sinks. In this context, containing CO2 in native ecosystems, including by terminating bottom trawling, banning bottom trawling, and preventing further damage to estuaries and other wetlands are good options.

ECO endorses the submissions of the Royal Forest and Bird Protection Society on the matter of native ecosystems and GHG emissions and stores.

Replanting should also not be used as a way of avoiding real reductions in emissions.

Our six big issues - policy priorities to reduce emissions

**Big issues 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 –

 None of them

Please explain your answer (1000 word limit)

**1.Policy and Interventions**

Your categories of policy interventions on page 104 are mostly agreed, as are many of the suggestions and recommendations for actions and indicators in chapter 6. Overall we urge faster action.

**2 Omissions and other considerations**

There are other areas that should also be included, especially institutional and structural changes, such as dismantling some agencies to remove industry capture of regulators and the restructure of the electricity market. As Te Ora Taio compellingly points out, there are many benefits relating to public health that should be brought into focus but are largely omitted from the Draft Report. Since they are an expert organisation focused on public health and climate change, their expert recommendations should be adopted.

We do not repeat the points made in that submission but do endorse those.

**3 In terms of influences on what policies are needed, there are some underlying issues to consider:**

As the Commission acknowledges (section 1.2 p220), “Addressing climate change requires transformational and fundamental change to the Country’s economy and society.”

We welcome this and agree.

We are disappointed to find that despite this, the intersections between the climate change and biodiversity losses and crises, health and inequality, structures and institutions in society and the economy that systematically reinforce patterns of disadvantage of groups and individuals in society have not been exposed in the Commission Draft. We understand that the Commission has been enormously stretched by having simultaneously to establish itself and to produce such a prodigious amount of work, but we do think these connections must be emphasized more in your final report to government.

We find the Commission’s Draft Report to wedded to business as usual, too willing to load the burden of adjustment on the periods after 2030, and too reticent about the need for major changes in structures, and deeper and faster emissions reductions.

Given the existing inequalities and institutions which have evolved and continue to benefit disproportionally powerful groups and dominant communities, it is vital that in its advice to the government the Commission stresses the need to use the transition to assist in redressing these inequities and power structures and ensuring that already disadvantages vulnerable people and communities are helped in the transition.

The selection of policy priorities you provide is welcome but inadequate. We need a mix of policy tools, but also an understanding of what builds social willingness, and the strength, durability and suitability of different measures.

**The need for political will and the existence of political space for this**

Most of all what is required is political will. With vested interests pushing hard against measures, public opinion, voice and democracy are crucial. The school strikes have been galvanising and have created political space and indeed demands for action. The COVID crisis, not remotely welcome, has also vividly demonstrated that change can happen fast when there is a high level of agreement on the need for this and rallying leadership with a shared sense of moral imperatives as well as the self-interest of championing present and future security. The change and disruption caused by COVID can and has, allowed people to reconnect with their values and to change long ingrained habits. The adoption of distance working is an example.

The Climate Commission’s report will set the parameters of discussions, so it is essential that the Commission makes very clear the importance of deep cuts now, and doesn’t pussyfoot around in order to not scare the horses or to preserve BAU. It is essential that the Report is clear what is lost by tardy action – biodiversity and ecosystems are “unraveling” as we dither and defer to vested interests. The Commission must make it clear that much more is to be lost by delay than by taking action now. We should be discussing how to manage the rapid transition and safeguard the vulnerable, not providing reasons for delay.

We welcome the Commission stressing that there are plenty of existing technology and practices that can be adopted, and that you set the research agenda.

**Policies:**

1 ECO agrees and welcomes most (but not all) of the actions and policy suggestions in chapters 5 and 6. But we urge greater speed and a greater scope of action, given the urgency of the pace of climate destabilization. New Zealand has had decades to prepare, it is galling to see the Commission buying into the rhetoric that more time, signaling and preparation is required. That argument – as well as outright denial and obfuscation – has been used for at least 3 decades. It is time to take accelerated action and not to wait further.

For example, we agree that we need to do the things suggested on p103 “Necessary Action 1” but we should not wait for the studies and evidence proposed, we need to get busy on actual reductions with great urgency.

**2 Removal of exemptions**

By far the most effective mechanism for rapid reduction of NZ’s GHG emissions is to remove the exemptions from responsibility from agriculture and from the “trade exposed” industries. The massive exemptions load the burden of emissions reductions onto the rest who have no capacity to reduce the emissions that the others make. Exempt emitters in turn have no incentive to reduce emissions, rather they invest in lobbying and green-washing to avoid regulations and controls.

**Removing the free allocations NZU allocations should be first and foremost on the list.** It is vital that those who emit feel the cost of that and are incentivized to take the emissions reduction action that is in their power. Further delays will only further skew investments and leave even more stranded assets in the future, including workers and other people – including farmers - feeling unappreciated and left behind. Continued indulgences to those who lobby for exemptions also undermine the willingness of others to reduce their own emissions because the free allocations are seen as (and are) unfair and mutual assurance is not achieved.

Continued government back tracking and indulgence of those who lobby hard for exemptions, also encourages others to plead for special treatment. The result is that private investment is directed to lobbying for exemptions rather than to cutting emissions.

The simplest way to avoid industry shifting offshore to countries with weaker emissions requirements is to apply a carbon levy on imports. This is the approach that the European Parliament has voted to introduce on imports into the **EU** from countries with weaker emission rules[[8]](#footnote-8). The EU is promoting an active debate globally on the use of carbon levy on imports.

**3 Education is important but the “information deficiency, education fix” theory of change in behaviour has been shown not to be particularly effective.**

**Motivation has to be a focus of policy along with institutional and other drivers.**

**Intrinsic motivation can be displaced by extrinsic motivation,** so it is vital that the social, personal and ethical commitments to reducing GHG emissions are fostered, and that the social norms and sense of agency to change are developed, extended and nurtured.

**Many people – including those in ECO – resent the cost shifting by agriculture and big GHG polluting industries with their free allocations**. Their success in influencing politicians to give them a free ride speaks to their political power but it disempowers and shifts burdens on to the rest of us who have little capacity to influence those emissions.

**“Mutual assurance” is an important issue for most people**: they will undertake actions that has cost to them so long as everyone else does too. The free allocations not only shift the burden of emissions reductions onto those who do not control those emissions, but also undercuts the willingness of others to take action.

Social psychologists and behavioural economists have a lot of empirical evidence on both the dissonance of human behaviour with peoples’ values, attitudes and habits, and the influences of social pressure and communications. That aspect of policies for change may be included in your “Regulation, education and other actions to address barriers” category (p104), but it does need to be drawn out. Measures must be implemented to achieve the tipping point of public opinion in favour of rapid action.

**4 Pricing of carbon but only with either a strictly enforced cap in a cap and trade regime or a carbon charge universally applied**

Pricing OR quantity restrictions (caps) are one set of options but as we have vividly seen, they, like most measures, are vulnerable to perversion and subversion by vested interests and lack of political will.

Addressing the information and transactions costs for people and businesses to reduce their GHG emissions is a role for government, both local and central, but this may be more effective if NGOs are funded to do this.

Price signals via the ETS or a carbon charge (our preferred option) should be much stronger and will require strong-minded regulation and control of quantity caps. The ETS has so far failed to be effective at anything except transferring wealth in an unfair way and lulls people into thinking that it is effective.

Even for those who are interested, it is unclear how people get to participate in emissions and credits trading.

**5 Electricity Market Reforms**

The gaming of the electricity market has been a running sore since that market was created. The manipulation of supply and the price, and the supplier-imposed price suppression for those willing to sell to the grid, mean that incentives for distributed electricity supply are severely muted.

As in Dr. Bertram’s submission to you, referenced to a suite of expert papers by him, the rising marginal cost of fossil fuel extraction and supply is leading the price and preventing the benefits of renewables passing through to consumers and to allow the local network operators to integrate distributed generation into the supply.

Dr. Geoff Bertram and others have long exposed the problems with the gentailer cartels and the barriers to decarbonisation created, and have and proffered remedies. We urge the Commission to press the government to grasp that particular nettle and sort it out so that genuine supply and demand price signals are transmitted, rather than allowing other businesses and consumers to be price-gouged by the big gentailers, and for barriers to entry to the market to remain.

Reform of the electricity sector would allow consumers to get more accurate feed back, and would nurture distributed generation, so providing more incentive to investment, more resilient supply and relieving some energy poverty.

Dr Bertram’s expert and extensive research and writing on the topic of the Electricity market “reforms” and contorted evolution since are documented in his own submission of 25 March 2021 to the Commission and to other policy and expert journals, and we will not repeat those references here, but we do recommend them.

**5 Public investment to smooth out capital costs, lower information costs**

The high capital costs of upgrading the energy efficiency and performance of new and existing stocks of houses and other buildings, consumer durables, and switching costs should be the subject of public sector funding and support. This is especially the case with overcoming the high capital costs of consumer durables or switching production processes with long-term pay-offs of energy efficiency. Direct subsidies or loans for cost smoothing such as lowering the initial costs of electric vehicles, and insulation etc, means that there should be public investment funds available to help with the transitions needed. Rent-to-buy and other mechanisms for tackling high up-front costs should be used to increase social, environmental and health outcomes.

**6 Regulation, eg. of performance standards, prohibitions, supply of accurate information**

In some cases direct regulation both of product efficiency and of information provision about GHG emissions, environmental consequences, health benefits and harms etc is also needed. So too is regulation of some markets.

Information and capital costs of switching to low emissions alternatives to ways of doing things or to timber in construction etc, can be high. The more reliable and independent advice people can access about switching consumption and production choices the easier it is for people to switch.

**Prohibition of harmful products and practices**

We suggest as an immediate step to help the environment in several ways, particularly to reduce carbon losses and losses of biodiversity, that New Zealand apply prohibitions on some products and practices. New Zealand has done this in the past for a range of products and services, most notably our decision to ban the installation of asbestos, the adoption or entry of nuclear power and weapons, and other extremely toxic and hazardous technologies and products.

**The import of the rainforest destroying oil palm expeller (PKE) as a stock food should be banned**, on account of our moral responsibility to not contribute to the loss of tropical rainforests and habitats, forest dwellers, human and otherwise (think orangutans) and to reduce intensification of dairying. Yes, PKE is a waste product, but its sale to New Zealand farmers increases the profitability of, and hence extension of, palm plantations which are driving rain forest destruction.

**Public provision or funding of reliable information**

Much clearer and accessible consumer information on the ghg emissions, the environmental consequences and the different forms products, production methods and consumption consequences is also a “public good” (ie non-rival and non-excludable) which governments ensure that consumers can access. The governments should variously require clear and accessible disclosure of GHG emissions by suppliers, and provide publicly or fund third parties to provide – with suitable controls to avoid client- driven certifications – information that can check the integrity of supplier-supplied information.

An example is the current lack of information to consumers on the consequences of fishing, and the difference in environmental impacts of various fishing methods. Some methods should be outright banned because they are unacceptably damaging, (bottom trawling for instance just as have the use of explosives or toxins) and a transition away from environmentally damaging methods should be signaled and quick. Information is also needed on alternatives.

**Bottom trawling, Greenhouse Gas emissions and biodiversity protection.**

Recently published research by Sala et al (2021) shows that bottom trawling, as well as its known but not widely publicised environmental effects: destruction of ancient benthic (seabed) organisms such as corals, removal of habitat, and disruption of breeding and trophic relationships, causes massive CO2 emissions into the marine environment. The persistence of this bludgeoning form of fishing is unreasonable and is testimony to the political clout of New Zealand and global fishing oligarchies.

**Waste and alternatives**

ECO welcomes the Commission’s proposals relating to waste, but we think a deeper, more structural approach is needed as well. We agree with the analysis on pp126-127 regarding the difficulties posed by agency silos. Perhaps you felt you cannot name names, but several government agencies including parts of MBIE, some in Treasury, some divisions of MPI are examples of government agencies that continue to champion obsolete understandings of economic growth and fail to see the significance and urgency of the need to move to a circular economy and to understand that economic growth is not something that we should see as the source of human wellbeing, but rather the source of peril to the planet.

A number of waste control specialist NGOs and others make good detailed suggestions that we support, including the speeding up of rates of change.

Investment in understanding and reporting the alternatives to extraction of minerals and support for resource recovery from wastes, and for avoiding food waste, are important. There are several glaring examples where existing suppliers of virgin materials have achieved strong capture of government agencies and officials to the point that regulators have come to believe their role is to serve and promote the existing industries rather than the public.

Massive reluctance to address transitions to diverting, reusing and recovering materials has led to NZPAM and MBIE resisting offering these as lower carbon and lower environmental impacts alternatives to “virgin” mining. MBIE did add a few paragraphs about moving to a circular economy in their Resource Strategy Petroleum and Minerals 2019-2029 [https://www.mbie.govt.nz/dmsdocument/7148-responsibly-delivering-value-a-minerals-and-petroleum-strategy-for-aotearoa-new-zealand-2019-2029 , November 2019] but the bulk of their final version is still very much “business as usual” and seems uncritically to swallow the mining industry’s PR line that mining is essential to a “green economy”.

We consider it is counterproductive to environmental and climate goals that the government continues to support and push for wasteful and damaging extractive industry just because there are jobs available from crude and damaging production methods. Mining – egged on of course by the mining industries, and the continued government support for hugely destructive fishing methods are cases in point. It may take radical surgery of dinosaur government agencies to split from the regulator as champion of the industry that we have inherited.

In the mining realm, as the Commission acknowledges in section 3.8.8 and action 13 , we should be much more active in recovering materials including minerals from electronic and other products. “Urban mining” has been shown to have a higher ore grade than most mineral resources in the ground. Yet we have MBIE, especially NZPAM, continuing to allow and promote, respectively, new exploration and mining (even on Crown conservation land in and under the Conservation estate). Increasingly the seabed is also at risk.

The benefits from waste reduction, diversion, recovery and reuse are several fold, with co-benefits of preventing contamination of land, water and air; employing people and other resources much closer to where they live; and not industrialising wild spaces and places.

Measures to insist on product design for reuse and recovery, with deposit-refund systems and clearly explained and accessible places for collection (especially but not only of toxic wastes) and re-usable and re-purposed products, are also needed.

In our 2019 submission to MBIE on the Resource Strategy, ECO suggested:

New Zealand needs to shift from encouraging minerals industry activities (ie prospecting, exploration and mining) to sustainable alternatives, including:

a) Substitution to alternative, sustainable products in both consumption and in production. Examples include (genuinely) sustainably grown plantation timber for building instead of steel; passive solar, solar power and wind, tidal and current power generation in the marine environment, and substitution to natural fabrics.

b) Resource recovery, recycling, reuse; E.g. sourcing minerals from resource recovery - resource recovery - from tips, landfills, households and firms etc – “urban mining” to recover minerals – copper, steel, gold and much more; and also to recover and reuse or repurpose sources of embodied energy – e.g. plastics.

c) Demand reduction: refusing to use or import “virgin” materials; use of technology with much greater efficiency, substitution to renewable products.

d) Demand substitution: by means of substitution to renewable alternatives from minerals.

f) Implementation of true cost pricing.

g) Efficiency, recycling, and reuse requirements for products and for provision of some services such as in demolition and building and construction, roading etc.

h) Regulations changes to require a shift to renewables.

Our six big issues - technology and behaviour change

**Big 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?**

Strongly agree - Agree - Neutral - Disagree - Strongly disagree - Do not know Please explain your answer (1000 word limit)

ECO welcomes the development of emissions budgets and hence for emissions cuts, and the tracking of these against outcomes. As above, we do not think the targets and pathways are ambitious enough.

As above, we think the proposals are achievable but are not sufficiently ambitious. More needs to be done faster.

In a draft of the intergovernmental Panel for Biodiversity and Ecosystem Services (IBPES) Summary for policymakers of the global assessment report on biodiversity and ecosystem services, **by Diaz et al, 2019,** there is a compelling and urgent case for action to protect biodiversity. It notes, in Para D, [and all in bold]:

*D. Nature can be conserved, restored and used sustainably while simultaneously meeting other global societal goals through urgent and concerted efforts fostering transformative change*

*Societal goals – including those for food, water, energy, health and the achievement of human well-being for all, mitigating and adapting to climate change and conserving and sustainably using nature – can be achieved in sustainable pathways through the rapid and improved deployment of existing policy instruments and new initiatives that more effectively enlist individual and collective action for transformative change****. Since current structures often inhibit sustainable development and actually represent the indirect drivers of biodiversity loss, such fundamental, structural change is called for. By its very nature, transformative change can expect opposition from those with interests vested in the status quo, but such opposition can be overcome for the broader public good.*** *If obstacles are overcome, commitment to mutually supportive international goals and targets, supporting actions by indigenous peoples and local communities at the local level, new frameworks for private sector investment and innovation, inclusive and adaptive governance approaches and arrangements, multi-sectoral planning and strategic policy mixes can help to transform the public and private sectors to achieve sustainability at the local, national and global levels.*

The original was all in bold. We have bolded two sentences which we feel are particularly pertinent to NZ’s emissions reduction efforts.

(The final version can be found here: <https://ipbes.net/sites/default/files/inline/files/ipbes_global_assessment_report_summary_for_policymakers.pdf>

2

Detailed questions on our advice

The next set of questions are about the recommendations in our draft Advice report. In total, there are 24 consultation questions, grouped as follows:

**Our approach and emissions budgets**

* Our approach – the principles we used for our analysis (one question)
* Emissions budgets numbers – including the levels and breakdown by gas (three questions)

**Our enabling recommendations**

* Our advice on what we need to enable an enduring climate transition (five questions)

**Our path to 2035**

* Locking in net zero (two questions)
* The path to meeting the budgets (one question)
* An equitable, inclusive and well-planned transition (one question)

**The direction of policy in the Government’s emissions reduction plan**

* Our advice on the actions required for each sector (one question per sector):
	+ Transport
	+ Heat, Industry, Power
	+ Agriculture
	+ Forestry
	+ Waste
* Our advice on a multi-sector strategy (one question)
* Our advice on the rules for measuring progress (one question)

**Advice on the Nationally Determined Contribution (NDC) and potential reductions in biogenic methane**

* Our advice on the NDC (three questions)
* Our advice on potential reductions in biogenic methane (one question)

3

1. How we developed our advice

Consultation question

1. Do you support the principles we have used to guide our analysis? Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (400 word limit)

ECO is unsure which section of your draft report you mean here – page references would help.

We assume that you mean the principles on pp29-30.

We agree with most of the Principles in se 2.2 of your draft report, but we think there are others that need to be included and emphasized:

a) Convey the benefits from emissions reductions

b) Convey the urgent need for rapid and profound transition to a circular economy in which we live within biophysical limits and rapidly stop the harmful practices that are underway and leading us into irreversible losses and tipping points. It is vital that this is given preeminence over considerations of economic (dis)comfort, since biophysical losses lead to profound and enduring harms to all, human and non-human and are likely to be both irreversible and irreplaceable.

c) Much more can be done in relation to social and community mechanisms. Civil society is mostly ignored in the report, but that should change.

d) More explicit commitment to giving effect to Te Tititi o Waitangi is needed.

e) Consideration of the need for a legal framework of human responsibility for the way in which we treat the environment is needed. New Zealand should adopt and promote recognition of the crime of ecocide and join those who are conceptualizing and developing “earth laws” and earth rights, to move the discourse from human claims to the environment to recognition of the rights of nature.

f) As well as avoiding unnecessary costs, NZ should accept necessary costs and not defer these any more.

g) NZ should accept that we have a responsibility to help Pacific neighbours and to taken on greater emissions reductions in recognition of our moral responsibilities.

h) ECO is not fully convinced that the “net” reductions of emissions obscures and overstates the full picture of NZ’s feeble emissions reduction attempts and reliance on past pine planning to make it seem as though we are doing more that we really are.

i) New Zealand should adopt much greater recognition of the interwoven crises and institutional embedding of cost shifting and we should be very careful to recognise the losses of and benefits from climate policies to biodiversity, (in)equality, opportunities and harms to different sectors of society.

1. Emissions budgets numbers

Consultation question

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

ECO would have found this much easier to fathom if the information on p31 had been supplemented and linked to the information on pp155-158, especially table 8.3.

|  |  |  |  |
| --- | --- | --- | --- |
| **Too ambitious** | **About right** | **Not ambitious****enough** | **Don't know** |
| **Emissions budget 1****(2022 – 2025)** |  | yes |  |
| **Emissions budget 2****(2026-2030)** |  | yes |  |
| **Emissions budget 3****(2031-2035)** |  | yes |  |

**Please explain your answer (1000 word limit)**

As explained else where, the budgets leave too much of the cuts to after 2030 to 2035, and do too little to address the strains on biodiversity. Too much of the burden is placed on the future and not enough on the current (older) generations who have benefited from the economic benefits of the lack of action.

1. Breakdown of emissions budgets

Consultation question

1. **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?**

The net approach obscures the lack of true emissions reductions and has served to veil the slackness of NZ’s efforts hitherto.

The two-gases approach has some merit, and is prescribed to the Commission, but it fails to capture the durability of the heat retention in the sea caused by the potent but short-lived gases including methane.

We refer you in this respect to the work of Dr Geoff Bertram and his submission and references.

The removals by forestry cannot be relied on to continue unless there is effective support for more permanent native forest sinks. The social licence for pine forests and other exotic monocultures is largely expired because of the harms caused and the reckless practices used.

The shifting baseline for emissions reductions is unacceptable – we should reference 1990 not 2005.

ECO agrees with your statement on p34 about not relying on forestry removals.

4

|  |  |  |  |
| --- | --- | --- | --- |
| **Too ambitious** | **About right** | **Not ambitious****enough** | **Don't know** |
| **Gross long-lived gases** |  | Yes |  |
| **Biogenic methane** |  | Yes |  |
| **Forestry** |  | Needs more attention to regeneration and protection of existing native forest which will give a far better bang for the climate and biodiversity bucks than planting new forest. |  |

**Please explain your answer (1000 word limit)**

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

Consultation question

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

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

Although GHG s are uniformly mixed pollutants, and thus it should not matter where on the globe emissions reductions are done, we know that off shore mitigations are prone to all sorts of rorts and distortions. The Hot air debacle, mis-reporting, sleight of hand and other malpractice means that off-shore mitigation should be avoided: but aid should be offered to vulnerable communities to deal with sea level rise and other effects of climate change.

Enabling an enduring climate transition - intro

1. Cross-party support for emissions budget

Consultation question

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

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

Gen Zero and others carefully designed their proposals to achieve political stability and to provide that budgets do not coincide with the 3 or 4 year election cycle.

Restraint by the Opposition – of whichever colours – will be needed to aid multi-party agreement.

1. Coordinate efforts to address climate change across Government

Consultation question

1. **Do you support enabling recommendation 2 on coordinating efforts to address climate change across Government? Is there anything we should change and why?**

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

We know from bitter experience that when it comes to “whole of government” approaches this usually means that the powerful economic agencies tend to bully the environmental agencies into submission. We see this over and over again with MPI bullying DoC, MBIE doing the same in relation to minerals, DoC becoming stocked with people from the other agencies or the industries that want to capture DoC’s decision making.

Unless there are some very strong mechanisms put in place to stop that, it may be better to give a climate agency super-powers and transparency of reporting, and to have audits of performance not only by the Climate Commission but also by the Office of the Auditor General.

Measures for open government including New Zealand acceding to the Aarhus Convention and stronger whistle-blower protections will also be needed.

“All of government” approaches sound good, but they have the effect of enabling powerful agencies and suppressing dissent by environmental agencies.

We do support the suggestion of a separate Vote Climate Change.

1. Genuine, active and enduring partnership with iwi/Māori

Consultation question

1. **Do you support enabling recommendation 3 on creating a genuine, active and enduring partnership with iwi/Māori? Is there anything we should change and why?**

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

ECO does support Recommendation 3, but we have some caveats.

We have many times observed that the practice of kaitiakitanga in the industrial fisheries area is often in very short supply. We rarely hear industrial Maori fishing organisations urging care for the environment. We hear a lot of “hands off our quota” when we suggest catch limits on overfished stocks, or we propose on the basis of science that there be no-take areas established to allow ecosystems to recover or thrive and for climate resilience.

As with the Kermadecs Sanctuary proposal, the iwi whose rohe is involved are very supportive of the sanctuary proposal, but the quota owners are vocal in their opposition, despite there being almost no fishing in the area, so the argument seems to be about option value and to disallow those whose rohe it is the right to protect the area. We notice that there is an ugly world-wide tendency for extractive industries to use indigenous people as the battering ram to gain access to resources.

We note and support the efforts of various Maori to protect Papatuanuku and moves to define Earth Rights and laws. Work to establish the rights of nature is being done across the globe including by some prominent Maori academics. We consider that this legal work and ethics development and articulation is needed to centre the rights of nature including to have space and to flourish.

Nature-based solutions need more development and Matauranga Maori is a vital source for these. The voices of those who have nature’s rights and human dependence on its continuing functioning and flourishing central to their thinking need to be heard over the voices of short-term extractive interests.

Under the Fisheries Act 1996 there is a requirement for customary non-commercial Maori interests to be heard, but this voice is relatively rarely heard outside marae.

ECO notices that the current government’s plans seem to foster consultation and partnership with Maori and we applaud that. We are dismayed though that the government increasingly is taking an Edmund Burkean approach to government that dispenses with public participatory democracy. Thus we see public input being heavily constrained in proposals on many fronts, including plans for the Resource Management System Reform. There are many reasons for public participation, including obtaining the consent of the governed, the disclosure of information and knowledge that decision makers may not have, democratic legitimacy that cannot be gained simply by 3 or 4 yearly elections, and many more.

We urge the Commission to work to preserve public participation in decisions, as you have this time, and not to accept proposals that do not involve the public.

1. Central and local government working in partnership

Consultation question

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

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

1. Ensuring inclusive and effective consultation, engagement and public participation

Consultation question

1. **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 - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

Yes ECO does support consultation and public participation. We suggest that both the proposal for a Citizens Assembly and Public participation be adopted, and that the former have access to the latter.

We contrast that suggestion with the operation of Advisory Groups in which the Minister for the Environment uses a chosen group of participants who are reused for a range of different issues (E.g. water, the Resource Management System Reform) and are not representative of the full range of environmental stakeholders and much less representative of grass roots groups than those he consults.

10-11. Locking in net zero

Consultation questions

1. **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 - Partially support - Neutral - Do not support - Do not know Please explain your answer (400 word limit)

We agree that there is a pressing need to decarbonise sources of long-lived gases but we also consider that more action on the short lived gases is needed because of the potency and speed with which they affect temperatures and hence the oceans and cyrosphere.

1. **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?**

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (400 word limit)

ECO supports policies for encouraging the recovery and growth of native forests, but we consider the priority should be to encourage regeneration and rapid recovery of existing native forests and of other native ecosystems including marine ecosystem recovery and protection.

Those who do conserve, including some sheep and beef farmers with tracts of bush, will usually not be able to afford much to pay for fences, weed control and so on because they are forgoing market revenue by conserving. The public benefit from retaining native indigenous is real, so there are good grounds for public provision of funds to help with the costs of exclusion and protection from pests and diseases.

There are many landowners who will not demand an income from native forest, but will need help with capital costs of protection.

6

1. Our path to 2035

Consultation question

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

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

The various paths are worthy but too slow. We want to see agriculture and the free allocations removed to speed up adjustments and to reduce the misdirection of public and private investment in capital and in skills.

We support many of your suggestions, including the phased down of high emissions geothermal fields and of the Methanex plant. We support your recommendation that new gas connections be ended but think that could and should be brought a bit closer to the present.

We particularly support the end to coal and all fossil fuels exploration and mining and a prohibition on stockpiling of these.

We agree that emissions from international aviation and shipping should be included in decarbonisation plans. The activities of bottom trawling and seabed mining should also be included in decarbonisation plans, particularly on account of their release of carbon into the marine environment, the impacts of ocean acidification and heating, and the extreme damage done to the benthic structure organisms, ecosystems and trophic structures.

As mentioned earlier, the very new research (March 2021) by Salas *et al*, shows that globally bottom trawling causes as much GHG emissions to the marine environment as are emitted by the aviation industry.

Because of the New Zealand bottom trawling fleet that works extensively around and beyond New Zealand and our EEZ catching hoki, ling, alfonsino and orange roughy, New Zealand must have a high bottom trawling emissions profile. Hoki fishing, ostensibly mid water trawling, habitually has great hawsers and nets that touch the bottom.

Our vessels account for 90% of the bottom trawling in the South Pacific Regional Fisheries Management area. Most of the companies involved also oppose the declaration of marine protected areas and strict move-on rules to protect vulnerable marine species and ecosystems, so the safeguards for the marine environment are often weakened or abandoned. Cold water corals and other sessile (seabed attached) creatures such as hydroids, are at particular risk, are ancient and easily broken or turned into rubble, with consequent further and lengthy losses of ecosystem and habitat function.

1. An equitable, inclusive and well-planned climate transition

Consultation question

1. **Do you support the package of recommendations and actions we have proposed to increase the likelihood of an equitable, inclusive and well-planned climate transition? Is there anything we should change, and why?**

Fully support - Partially support - Neutral - Do not support - Do not know Please explain your answer (1000 word limit)

Equity has several dimensions. Within a time period, people in like circumstances should be treated the same (horizontal equity) and those in unlike circumstances should have unlike levels of support to offset their disadvantages. There is thus a strong case to give those most vulnerable and most innocent more help than those who are less vulnerable and less innocent. By innocent we mean those who have not acted to deny, delay, obfuscate and shift the costs of the harms they create onto others.

Inter-temporal equity in our view, means not loading costs forward onto future people and for those who have gained in the lead up to recognition and action on the problem to take a greater burden of the remedial action needed.

Where social and economic structural arrangements and institutions have disadvantaged groups of people, notably Maori, Pacific, migrant and those with qualities that limit their capacity to adapt or which cause others to limit access to options, then there should be particular care taken to redress the disadvantages suffered. ECO knows you will have submissions from many quarters on these topics so we will simply endorse those concerns and not rehearse those all over again. We note that access to homes., particularly healthy homes, is a biggie for many and so is transport.

1. Transport

Consultation question

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

Support all the actions - Support some of the action - Do not support these actions - Do not know - Neutral

Please explain your answer (1000 word limit)

ECO endorses investment in public and active transport. We oppose huge investments in extra motorways because such investment is largely futile (and GHG intensive) given the phenomenon of induced demand. We are interested in the reports of “reduced demand” where people switch to other modes of transport when lanes on motor ways are closed, and when public transport becomes more efficient, adaptable, safe, pleasant and frequent.

As your report notes, there are some circumstances where no public transport is available in rural areas and on farms where heavy loads and rough terrain prevail. Electrification is one answer.

As many Wellington residents living down walkways and up steps know, there are topographical obstacles to the adoption of home plug-in stations for electric vehicles. There will be a need for reasonably densely spaced and accessible public (and work) charging stations for such vehicles (or at least their batteries).

The public health implications of transport mode shifting, and of removal of motor vehicle fumes and particulates should be factored into the discussion of investments in electric vehicles and their infrastructure. Longer term, investment in urban form and in IT to reduce the need to travel for meetings and work will give dividends in both health and GHG emission terms.

ECO warns that in some places and in some laws and plans and policies (notably the Urban Development Act and the Auckland Long Term Plan) there are moves to sacrifice reserves and parks for housing. Moreover many such proposals exclude the public from shorter term input. There is a good deal of evidence that mental and physical health is adversely affected in the absence of natural spaces. Biodiversity will also suffer. Removal of public open and green space will also likely cause people with the means to travel further from their homes to access green and blue spaces. The Commission should take this into account and warn the government that compelling as the need for new housing is, dwellings should not displace public open and green space.

There is little discussion of transport in the marine environment. Clearly ferries and the like can and are converting to electric power.

We observe that some of the recreational and commercial motor craft are extremely wanton in their use of marine diesel. We think this kind of discretionary and wanton use of fossil fuels should be addressed, but do not have figures to proffer.

International maritime industries and shipping are mentioned in your Report, - and we support both marine and aviation being factored into policy and accounting, but less attention is paid to the fuels used by other vessels. At one time some New Zealand trawlers were using one tonne of fuel to catch one tonne of fish. Replacement engines have reduced this ratio we understand, but it is still high. Some methods of fishing have much higher GHG emissions than others, just as some are much less damaging to biota and ecosystems than others.

1. Heat, industry and power

Consultation question

1. **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 - Support some of the actions - Do not support these actions - Do not know

* Neutral

Please explain your answer (1000 word limit)

The Commission’s account of this sector’s current emissions profile (p15) account for 41% of long lived gases., i.e. 18.8Mt CO2-e. Conversion from burning fossil fuels for electricity to renewable sources will, we understand save a good deal of that, as will the cessation of coal mine operation and oil refining and provision other fossil fuel uses.

ECO considers there is much more scope for solar power than is usually acknowledged and that the costs of such systems have fallen rapidly over the last three decades and over the last 5 years. Solar PV panels are cheaper and generate more power per panel, deep cycle batteries – such as lead-carbon – are expensive for most households but are more efficient and resilient and much cheaper to transport than lead-acid batteries which are classed as hazardous, unlike the lead carbon ones.

We consider that much of the reluctance to install these domestic and other systems reflects historic costs not modern costs, and lack of familiarity with the technology for off-grid electricity – which is fairly straight forward once good information is available to installers.

As mentioned earlier, sorting out the cartel system of the electricity market and the gaming and price manipulations that characterize that market is essential to any major electrification. Dr Geoff Bertram’s submission covers this aspect so we will do no more than note it.

7

1. Agriculture

Consultation question

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

Support all the actions - Support some of the actions - Do not support these actions - Do not know

* Neutral

Please explain your answer (1000 word limit)

Several experts and working farms have demonstrated that low input, low intensity, agriculture is both possible and profitable. Extension work to show other farmers this and to show how it is done must be a priority.

Bringing agriculture into the ETS and removing the special indulgences are also essential. That will stimulate the take-up of new low-emissions practices. Breeding for low methane flocks and herds will be slower, but are well worth doing.

Conversion of land use to tree crops (especially if water and other nutrients can be supplied with low environmental impacts), manuka for honey production, and other high value crops that do not cause as much environmental harms should also be encouraged with advice and extension training.

There are likely other animal farming candidates that could be encouraged – not ruminants, and not likely to go feral, but animal welfare considerations and potential to become pests must be considered.

Tackling nitrous oxide will require shifting farming models from the application of synthetic nitrogen and reducing farming intensity. Similar changes can also help to reduce biogenic methane.

Conversion of dairy farming to horticulture at the measly rate of 2,000ha per year seems unamibitious. In the Coromandel and elsewhere we are already seeing dairy farmers converting to avocado trees (which need regular water and good drainage), kiwi fruit (these are long standing conversions), paddocks growing water melons, mixed orchards, and more. We can probably expect more open growing of cannabis in future with less impacts on native forests and other crop hiding places. Hemp growing is also seemingly taking off. We think your estimations of land use conversions are too conservative.

1. Forestry

Consultation question

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

Support all the actions - Support some of the actions - Do not support these actions - Do not know

* Neutral

Please explain your answer (1000 word limit)

ECO supports expansion of the area, biomass and diversity of native forests. A good proportion of the marginal land referred to (p67) will have remnants of bush and other native species. Helping farmers with the costs of fencing and pest control (weeds, pathogens and predators) will allow many of these areas to self-sow and regenerate. This is especially the case where source seeds and species can colonise without the need for planting. Removal of the need for non-natural nurseries, planting and watering where there is already a canopy or other native species would save much effort and cost.

Policies to help farmers to pay for fences, new stock water systems where natural water is fenced off, and other biodiversity protection measures will be needed. An understanding of some of the New Zealand rural cultural attitudes is needed to make policy work. Many farmers baulk at loss of autonomy and having to answer to “bureaucrats”.

Similarly the scale and design of assistance to farmers to retire and regenerate land needs careful design. The recent biodiversity funding for land owners which required farmers to find an organization through which to broker their applications for funding, constituted a major barrier for many farmers. The loss of autonomy, the need to find a willing partner at short notice and to negotiate what work needed to be done and the scale of the commitment was just too high. It is unclear why officials thought it necessary, but those aspects were a major deterrent.

ECO agrees with the Commission that pine forests will need to reduce substantially, and their social licence is vanishing fast in some communities. The problem of wilding pines and the other weeds that pine forests allow to flourish (such as non-native pampas) are further problems.

MPI’s definition of “permanent forest” is no such thing. It is only 50 years before “permanent” forests can be harvested. We oppose this debasement of the term “permanent” by MPI. We deplore the continuation of sly felling of native forest, both on the conservation estate and off it. We know that there are businesses that offer to obtain permits for native forest owners to “sustainably harvest” native forests and that there have been, and may still be, a number of sleights of hand in co-locating permissible logging coups so that larger areas can be clear felled.

1. Waste

Consultation question

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

Support all the actions - Support some of the actions - Do not support these actions - Do not know

* Neutral

Please explain your answer (1000 word limit)

We agree with proposals for waste avoidance and control. Your suggestions are fine, but need to be further developed and need to address the institutions and culture of some agencies and their staff who resist the idea of avoiding extraction of virgin materials and are at best half-hearted at any suggestion of avoiding the use of newly extracted materials by instead retaining, reusing, repurposing and recovering resources.

Food and other organic waste is one of the worst of wastes given the embodied emissions in the food and the methane emissions.

Waste that can then produce bioenergy is obviously important.

Insisting that waste is not dissipated into the environment and contaminating the receiving waters, land or air is a major co-benefit. Even with plastics where there is no current market for plastics 3 and above, we should separate and stockpile for future reprocessing or reuse.

1. Multi-sector strategy

Consultation question

1. **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 - Support some of the actions - Do not support these actions - Do not know

* Neutral

Please explain your answer (1000 word limit)

We agree with proposals for waste avoidance and control. Your suggestions are fine, but need to be further developed and need to address the institutions and culture of some agencies and their staff who resist the idea of avoiding extraction of virgin materials and are at best half hearted at any suggestion of avoiding the use of newly extracted materials by instead retaining, reusing, repurposing and recovering resources.

Food and other organic waste is one of the worst of wastes given the embodied emissions in the food and the methane emissions.

Waste that can then produce bioenergy is obviously important.

Insisting that waste is not dissipated into the environment and contaminating the receiving waters, land or air is a major co-benefit. Even with plastics where there is no current market for plastics 3 and above, we should separate and stock pile for future reprocessing or reuse.

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1. Rules for measuring progress

Consultation question

1. **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 - Support some of the actions - Do not support these actions - Do not know

* Neutral

Please explain your answer (1000 word limit)

See attached.

21-23. Our Nationally Determined Contribution (NDC)

Consultation question

1. **Do you support our assessment of the country’s NDC? Do you support our NDC**

**recommendation?**

Fully support - Partially support - Neutral - Do not support (too ambitious) - Do not support (not ambitious enough) - Do not know

Please explain your answer (1000 word limit)

We agree with the assessment that the current NDC is inadequate but do not agree with the recommendations made – they are to weak..

1. **Do you support our recommendations on the form of the NDC?**

Support - Somewhat support - Do not support (too ambitious) - Do not support (not ambitious enough) - Do not know

Please explain your answer (400 word limit)

More to come

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

Support - Somewhat support - Do not support (too ambitious) - Do not support (not ambitious enough) - Do not know

Please explain your answer (400 word limit)

See above

1. Eventual reductions in biogenic methane

Consultation question

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

Fully support our assessment - Somewhat support our assessment - Do not support our assessment

* Do not know - Neutral

Please explain your answer (1000 word limit)

See above

9

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2. See sections 5 of Lawyers for Climate Action Submission. [↑](#footnote-ref-2)
3. Sala, E., Mayorga, J., Bradley, D. *et al.* Protecting the global ocean for biodiversity, food and climate. *Nature* (2021). <https://doi.org/10.1038/s41586-021-03371-z> [↑](#footnote-ref-3)
4. See: Marshall Islands demands $100 tax on shipping emissions [https://lloydslist.maritimeintelligence.informa.com/LL1136097/Marshall-Islands-demands-$100-tax-on-shipping-emissions](https://lloydslist.maritimeintelligence.informa.com/LL1136097/Marshall-Islands-demands-%24100-tax-on-shipping-emissions) [↑](#footnote-ref-4)
5. IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate
[H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai,
A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. In press. [↑](#footnote-ref-5)
6. Stats NZ. (2017). [Agricultural production statistics: June 2017 (final)](https://www.stats.govt.nz/information-releases/agricultural-production-statistics-june-2017-final-nz-stat-tables). Retrieved 17 January 2019 from https://www.stats.govt.nz. [↑](#footnote-ref-6)
7. (Dinerstein et al, A Global Deal for Nature: Guiding principles, milestones and Targets, Sci Adv, 2019: 5; eaaw2869, April 2019) [↑](#footnote-ref-7)
8. Carbon News (2020) IMF endorses EU plan to put a carbon price on imports Published on 17/09/2020, 4:33pmhttps://www.climatechangenews.com/2020/09/17/imf-endorses-eu-plan-put-carbon-price-imports/ [↑](#footnote-ref-8)