He Pou a Rangi
Climate Change Commission

Advice on Agricultural Assistance

How financial assistance could support Aotearoa New Zealand's agricultural emissions pricing system

May 2022

This advice has been requested under section 5k of the Climate Change Response Act 2002. Section 5k allows the Minister of Climate Change to request specific reports related to emissions reductions and climate change adaptation from the Commission.

Disclosure statement

As anticipated by the appointment criteria, the Climate Change Commissioners come from varying fields such as adaptation, agriculture, economics, te ao Māori and the Māori-Crown relationship. While a number of board members continue to hold roles within these fields, our advice is independent and evidence-based. The Commission operates under its Interests Policy, which is derived from the Crown Entities Act 2004. You can read more about our board members on the Climate Change Commission website. The Commission regularly updates and publishes on its website a register of relevant board interests.

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Te karere a te tumu

Kua tau noa atu rā kia whakahekea rawatia e tātou te inenga o Ngā Kohinga Rehukino (GHG). Ā, kua kore e tutuki i a tātou mā te whakatō rākau. Me whai kē nei e tātou te ahunga whakaheke haumewaro mō 2030, ā, me nui ake te mahi e tutuki ai ngā whāinga kei te ture mō 2050.

Me rite tonu te hāngai o ngā mahi ki te tautoko i ngā iwi, i ngā ahurea me ngā tikanga o te whakaheke i ngā rehukino katoa – kia whāia hoki ko te ara whakaheke tukuwaro kei ō tātou tahua pūtea, ngā ahunga, me ngā takohanga ki te ao.

Ko te Ahuwhenua tētahi tino wāhanga o Ngā Kohinga Rehukino, te ōhanga, te ahurea me ngā whenua whānui kei Aotearoa nei. He āheinga tā tātou mō te anga whakamua me te whakarite i ngā tohu hei whakarokiroki i tō mātou mana nui ki te ao. Inā rā, ka tū hei mana nui mō te whakaputa i ngā hua o te ahuwhenua, hei ngā rā e tū mai nei.

Hei te hiku o 2022, me whai te Kāwanatanga ki te whakaatu ake i ōna mahi ahuwhenua, he pēhea nei ōna utu mo te 1 o Hanuere 2025. Hei tā tēnei rīpoata he āki i ngā tohutohu a te kāwanatanga ki ngā utu kohinga rehukino kei ōna mahi ahuwhenua me te uru atu ki tētahi wāhanga o tā te Kāwanatanga mahere mō te whakatika āhuarangi.

He tau nui a 2022 mā te Kāwanatanga. Kua whakatauhia e rātou tā tātou Koha Whakatau ā Motu (NDC) ki ngā taumata o te ao, ā, kua tau hoki te tahua pūtea tuatahi mō ngā tukuwaro me te Mahere Whakaheke Tukuwaro o Aotearoa. Ā, hei te hiku o te tau ka puta tuatahi atu Te Panoni Urutaunga o Aotearoa (NAP). Hei te Tīhema, ka kaikanohi atu ki te ahunga o ngā whenua Kāwanatanga ki ōna utu tukuwaro ahuwhenua.

Ko tēnei kōrero āki – he kōrero mo te noho tahi a te pūtea tautoko ki tētahi tukanga utu hei āwhina i te whakaheke tukuwaro Ahuwhenua, me te aha, ka hia te nui o ngā ara whai pūtea me te aromatawai i tēnā mahi – he wāhanga noa iho tēnei o te pikitia nui.

Ko tā He Waka Eke Noa me tōna mana taurite, kua tuku kē i ana tono ki ngā utu tukuwaro ahuwhenua mō te reanga pāmu. Ko ngā kōrero āki a He Waka Eke Noa he tohutohu i ētahi huarahi anō, me te aha, kei reira hoki ngā tukuwaro a Kaupapa Hokohoko Tukunga o Aotearoa (NZETS), he mea whakamarumaru i te 50% o ngā kohinga rehukino katoa o Aotearoa.

Ko te kōrero āki e haere mai nei – mō te rite mai a ngā kaipāmu ki ngā utu tukuwaro te take – ka tatu hei te mutunga o Hune. Ko ēnei mahi katoa ka uru atu ki te rīpoata a te Kāwanatanga hei te Tīhema me ōna tohutohu hoki te whai mai nei.

Me whai te tukanga utu a te Kāwanatanga ki te whakapoapoa i ngā kaipāmu ki te whakaheke i onā tukuwaro, i a rātou hoki e whakapakari ana mō te tarariki o te utu tukuwaro.

Heoi anō, e mōhio ana mātou ko ngā utu tētahi wāhanga noa iho o te whakaheke tukuwaro ahuwhenua. Ko tā *Ināia tonu nei* he whakaatu atu ka taea e Aotearoa i ōna mahi tukuwaro ahuwhenua, te noho hoki ki ngā ahunga āhuarangi, ā, mā ngā rauemi hoki o ēnei rā. Heoi, kua tīmata kē te tokomaha o ngā kaipāmu te anga whakamua me te kawe i ōna tikanga tukuwaro.

Mehemea ka whai rawa te taha rangahau me te taha whakawhanake, ka kitea ētahi āheinga anō ki te whakaheke tukuwaro. Inā rā anō te whakawhanake me te whakamahinga o ngā hangarau hou. Haramai te takohanga a te Kāwanatanga, i tōna Mahere Whakaheke Tukuwaro o Aotearoa (ERP), mā te whakatū i tētahi whare rangahau mō Te Whakatika Āhuarangi ki ngā Tukunga Ahuwhenua.

He mea nui te taha utu – ā, me tika tōna ahunga. Mā te mātau, mā te rirerire hoki o te tukanga utu nei ka whai urunga a Aotearoa ki ngā mākete whai mana, inā hoki te hekenga o ngā tukuwaro ahuwhenua.

Kei te ripoata a te Kāwanatanga ka tatu nei ā te Tīhema me ōna tohutohu hoki te whai mai, me mārama te utu tukuwaro, ā, me whakaatu tika i tētahi anga whakamua mā te rāngai ahuwhenua. Kia mahara hoki ki ngā hiahia a ngā kaihoko huri i te ao, ngā hangarau rerekē me ngā ture kei tāwāhi, koia pū ka whai waahi mai ki te hanganga; ko wai rā te kaihoko, ā, he aha te utu ka whakawhiwhingia e te rāngai ahuwhenua ki ēnei taungahuru haere ake nei.

Dr Rod Carr
Chair

Chair's message

It is well established that we must reduce gross greenhouse gas emissions, and that we cannot plant our way out of our commitments. We need to take action to meet our 2030 target for biogenic methane emissions, and we will need further effort to reach the 2050 targets in legislation.

Any action taken must support lower emissions lifestyles, livelihoods, and practices – putting us on a pathway to achieving our emissions budgets, targets, and international commitments.

Agriculture is a major part of the emissions profile, economy, culture, and physical landscape of Aotearoa New Zealand. We have an opportunity to get ahead and make choices now to preserve our world-leading status as an efficient producer of agricultural products in the future.

By the end of 2022, the Government will need to report on how emissions from agriculture should be priced from 1 January 2025. This report will contribute to Government decisions on pricing emissions from agriculture and form part of the Government's roadmap for climate action.

2022 is a big year for the Government. It has confirmed our Nationally Determined Contribution to the global effort, the first emissions budgets and Emissions Reduction Plan for Aotearoa are now set, and the first National Adaptation Plan is due later this year. By December, all eyes will be on the direction the Government lands on for agricultural emissions pricing.

This advice – on why financial assistance might be used alongside a pricing policy to support emissions reductions from agriculture, and how different ways of providing financial assistance could be assessed – is just one piece of the puzzle.

> *Reducing agricultural emissions will be critical to achieving the target of reducing biogenic methane by at least 10% by 2030.*

The He Waka Eke Noa partnership has now delivered its proposals for a farm-level emissions pricing system for agriculture. The advice from He Waka Eke Noa provides an alternative to including agricultural emissions in the New Zealand Emissions Trading Scheme, which covers half of the greenhouse gas emissions from Aotearoa.

Our next piece of advice – on farmers' readiness for farm-level emissions pricing – is due at the end of June. All of this work will feed into the Government's report in December and subsequent decisions.

The Government's pricing policy should create strong incentives for farmers to reduce their emissions while managing the impacts of emissions pricing.

We know however that pricing is just part of reducing agricultural emissions. *Ināia tonu nei* showed that Aotearoa can reduce agricultural emissions in line with our climate targets with the tools we have today, and many farmers have already started moving to lower emissions practices.

Further investment in research and development will mean we continue to see more opportunities to reduce emissions from agriculture, as new technologies are developed and adopted. We welcome the Government's recent commitment in the first Emissions Reduction Plan, with the establishment of a research Centre for Climate Action on Agricultural Emissions.

Pricing is important – and it's crucial to get right. A smart, well-designed pricing policy will ensure Aotearoa maintains access to high-value markets, while reducing emissions from agriculture.

The Government's report in December and subsequent decisions should provide clarity on how emissions will be priced, and show a clear and consistent way forward for the agriculture sector. It is important to remember that global consumer preferences, alternative technologies and overseas regulators will also shape what is produced, who it is sold to and what returns are earned by the agricultural sector in this decade and beyond.

Dr Rod Carr
Chair

Te whakarākei matua

He wāhanga matua te rāngai Ahuwhenua ki te ōhanga me ngā whenua o Aotearoa.

I a mātou kitenga o *Ināia tonu nei – Kia Whakahekea E Aotearoa Te Hauwaro* he whakaatu atu mēnā kāore ā mātou hangarau hou, ka taea tonu e Aotearoa te whakaheke ōna tukuwaro ahuwhenua mā ōna tukanga tika ki ngā pāmu, ā, mā te whakawhiti hoki ki te whakatō rākau me te ahuone.

Kua tīmata kē ētahi kaipāmu ki te whakaheke tukuwaro, engari mā ētahi atu mahi anō ka nui ake te whakaheke tukuwaro ki ngā pāmu, nō rātou e whakahaere tonu ana, e whakaputa tonu ana i ngā hua pai.

Hei te hiku o 2022, me whakatau e te Kāwanatanga he aha te utu ki ngā tukuwaro ahuwhenua.

Ko te Ture Whakautu Hurirangi 2002 he tohu ki te Kāwanatanga kia whakarite rīpoata tūmatawhānui ki tētahi hanga whakahaere i nga utu tukuwaro ahuwhenua mō mua i te 31 o Tīhema 2022.

Kua whakatūria e te mana taurite o He Waka Eke Noa tētahi pūnaha whakarite i ngā utu tukuwaro ahuwhenua, o waho atu i a Kaupapa Hokohoko Tukunga o Aotearoa (NZETS). Ā, he kotahi te whakarite a tōna kupu akiaki ki tēnei o ngā kupu akiaki.

Ko tā te Kāwanatanga he whiri i tā He Waka Eke Noa i homai, i tā NZ ETS i homai hoki mō te tukuwaro ki te reanga pāmu. Inā hoki te whakapono, ki te kore he painga i konei ki te taha whakarite i te rāngai pāmu mō ngā utu tukuwaro. Ka taea hoki e te Kāwanatanga te whiri i tētahi kaupapa anō.

Ā te mutunga o te Hune 2022, ka tuku kupu akiaki hei ārahi i ngā whakaritenga ki ngā kaipāmu mō te utu tukuwaro ā pāmu nei. Ka tukuna hoki tētahi puka whakamātau, kua whakaritea mai e te mana taurite o He Waka Eke Noa mō te whakapakari i ngā kaipāmu me ngā tukanga utu ki te reanga pāmu. Ka tohu hoki mena rā me nui ake te mahi.

He tika rānei – te whakapau pūtea mō te āwhina te take?

I ōna whakataunga, kua tonoa e te Kāwanatanga ki te Komihana kia āwhina te taha penapena pūtea, inā rā hoki he take o te whakapau ki ngā kaipāmu kei te reanga kaipāmu, o roto mai i ngā tātaringa utu tukuwaro.Kua whakatau nei e mātou, me whai ko tētahi tūmomo pūtea inā ko te āwhina rāpea te mea whakatere i te rāngai ahuwhenua hei whakawhiti atu ki ngā utu tukuwaro me te whai take ki ngā ahunga a te ture. Inā hoki, me iti ake te tarariki o ēnei panoni ki ngā kaipāmu.

Me whai te tukanga utu pai kia tutuki i te whakahekenga o ngā tukuwaro ahuwhenua. Me whai waahi mai te hanga ki te whakapoapoa i ngā kaipāmu, e taea ai te whakaheke i ō rātou tukuwaro, i a rātou hoki e whakapakari mai nei mō ngā tarariki ōhanga, ā iwi hoki mō te utu tukuwaro. Mā te āwhina i ngā kaipāmu ka pakari mai ki ngā whiunga kino, engari ka tutuki tonu i ngā hua pai mō te āhuarangi, mā roto tonu i ngā utu tukuwaro ahuwhenua.

Ko tā mātou, me whai waahi atu te Kāwanatanga kia āwhina ngā kaipāmu katoa, inā rā ko te tūpono ka pōhara rawatia nā te korenga o ngā rawa – i a rātou nei anō e whakawhiti ana ki ngā tikanga whakaheke tukuwaro. Āpiti atu ka taea hoki te uru āwhina ki tā te paeru whakatika tarariki e kī nei.

Mehemea kāhore he mōhioranga, he aha hoki te āhua o ngā utu, he aha rānei te taumata o ngā utu tukuwaro – ka uaua te hoatu tika nei i ngā kupu tohutohu ki ngā tāngata e tika ana, mēnā rā he tūmomo rōpū ka whai waahi mai ki ēnei momo āwhina.

Heoi anō, ka mana tonu tā mātou e kōrerotia ana e *Ināia tonu nei* kia kaua hoki ngā tukanga utu whai mana e whakararu noa, e aupēhi rānei i ngā raupatu ō mua a te iwi Māori. Ā, me aro ki ngā āhuatanga motuhake a te Māori i ōna tōpū whenua Māori me ōna tōpū uri Māori.

He mea nui te hanganga o ngā tikanga mō te whai āwhina i ngā tāngata te take.

Tā mātou aromatawai e tohu ana i te ara tika mō te whakatau i ngā akiakinga kei ngā hua o te pāmu.

Mā te āki i te pāmu ki te whai hua, kua āhei te kaipāmu ki te utu i ōna tukuwaro katoa. Engari ka ākina tērā utu nā runga anō i te ahua o tana whai hua. I konei te whakapoapoa o ngā kaipāmu kia whakahekea ōna tukuwaro, i a te tika o ana mahi, i a te piki rānei o ana whakaputanga.

Mehemea kua utua ngā tukuwaro, ā, kua āki hoki i ngā ringa mahi o te whenua – kua meatia ngā aromatawai ko tā te whakahekenga nui nei me ngā akiakinga i te kaimahi, he tohu ka rite tonu te whakapoapoa mō te whakaheke tukuwaro.

Mā te tohu i te wā, mā te āhua hoki o te utu ki ngā tukuwaro ahuwhenua, mā te āhua anō o te akiaki ka homai, ka whai mātauranga ngā kaipāmu, ā, kua mōhio hoki he aha te mahere me ngā tikanga whakaheke tukuwaro.

Rawa atu ki ētahi atu tukanga, me whai waahi atu ngā utu tukuwaro te tautoko i ngā whakahekenga tukuwaro a te rāngai ahuwhenua, e taea ai e Aotearoa te tutuki i te whakaheke tukuwaro kei ō tātou tahua pūtea, ngā ahunga, me ngā takohanga ki te ao.

Mā te mātau, mā te rirerire hoki o te tukanga utu nei ka whai urunga a Aotearoa ki ngā mākete whai mana, i a rātou hoki e whakaheke nei i ngā tukuwaro ahuwhenua.

Hei tā te ripoata a te Kāwanatanga ā te Tīhema, me mārama te utu tukuwaro ka tukia e ngā kaipāmu, kia kore ai e riro ki te pōhēhē, kia mārama ai te huarahi anga whakamua, ā, kia mārakerake ai te aroaro ki tēnei o ngā rāngai.

Executive summary

Agriculture is a major part of the economy and landscape of Aotearoa New Zealand.

Our analysis in *Ināia tonu nei: a low emissions future for Aotearoa* shows that even without new technologies, Aotearoa can reduce agricultural emissions through efficiencies on farms, and by switching some pastoral land to forestry and horticulture.

Farmers have already made progress in reducing emissions, but further changes can lower emissions on farm while maintaining, or even improving, productivity.

By the end of 2022, the Government will need to decide how emissions from agriculture should be priced.

The Climate Change Response Act requires the Government to publicly report on a system to price agricultural emissions by 31 December 2022.

The He Waka Eke Noa partnership has developed a system for pricing agricultural emissions outside of the New Zealand Emissions Trading Scheme (NZ ETS), and its advice has been developed at the same time as this advice.

The Government can choose to adopt what He Waka Eke Noa put forward, or to bring agricultural emissions into the NZ ETS at the farm level if it believes insufficient progress has been made in preparing the farming sector for emissions pricing. Government can also choose to provide an alternate option.

At the end of June 2022, we will deliver advice on how ready we think farmers are for farm-level emissions pricing. We will provide an assessment of the progress that has been made through the He Waka Eke Noa partnership to prepare farmers and the sector for a farm-level pricing system, and advise if more work needs to be done.

What – if any – financial assistance is necessary or appropriate?

As part of its decision making, the Government has asked the Commission to advise on what financial assistance – if any – should be provided to farmers participating in a farm-level emissions pricing system.

We have judged that some form of financial assistance should be considered to enable the agricultural sector to transition to emissions pricing and contribute to statutory targets, while limiting disruptive changes to farmers.

An effective pricing policy needs to achieve emissions reductions from agriculture. It should create strong incentives for farmers to reduce their emissions while managing the economic and social impacts of emissions pricing. Giving assistance to farmers can help to manage negative impacts, while still getting the climate outcomes needed through pricing agricultural emissions.

Our view is that the Government should give assistance to all farmers if it expects material financial hardship to be widespread as the sector transitions to low emissions practices, and could also chose to give targeted assistance based on certain criteria to manage more specific impacts.

Without having information about what the pricing system will be, or what level emissions prices will be set at, it's difficult to provide advice on whether there are any specific groups that will require targeted assistance.

However, we reiterate our position from *Ināia tonu nei* that any pricing policy implemented must not disproportionately disadvantage or compound historical grievances for Iwi/Māori and must factor in the unique characteristics of Māori collectively-owned land and Māori-collectives.

This is particularly important in the design of any methods for providing assistance to participants.

Our analysis shows the most effective way to determine assistance is based on a farm's output.

Basing assistance on a farm's output means a farmer pays for all their emissions, but they get assistance with that cost based on their rate of production. This results in farmers being incentivised to reduce their emissions while maintaining or improving productivity.

If emissions are priced and assistance is given at the processor level, our analysis shows the proportional discount and output-based assistance options would both provide the same incentives for emissions reductions.

Providing certainty about when and how emissions from agriculture will be priced, and what assistance could be provided, will give farmers the information and confidence they need to plan for lower emissions practices.

Alongside other policies, emissions pricing should support emissions reductions from agriculture to enable Aotearoa to meet its emissions budgets, targets, and international commitments.

A smart, well-designed pricing policy will ensure Aotearoa maintains access to high value markets, while reducing emissions from agriculture.

The Government's report in December should provide clarity on what emissions pricing farmers will face, to avoid ongoing uncertainty and give farmers a clear and consistent way forward, with more certainty on what the future will look like for the sector.

Scope of this advice

About He Pou a Rangi Climate Change Commission

We are an independent Crown entity set up to provide expert, evidence-based advice to successive governments to help Aotearoa transition to a thriving, climate-resilient and low emissions future.

We are a small team dedicated to ensuring we can pass a better Aotearoa on to future generations. We have a range of expertise, including economics, public policy, land and resource management, Māori sector, climate science, behavioural sciences, forestry, agriculture and energy.

We are supported by a board of eight commissioners from different fields.

The scope and timeframes for the Commission's advice are set out in the Climate Change Response Act (2002) (the Act). The Minister of Climate Change may also make a specific request to the Commission for advice on any topic.

The Act requires us to draw from the best available evidence and analysis and think broadly about the impacts of climate change and the implications for Aotearoa over time. In doing so, we take a systems view so we understand what our advice will mean for central and local government, for individuals and households, for business sectors and communities, for Iwi/Māori, and for our economy and our environment now and into the future.

We are committed to taking an inclusive approach and working collaboratively with others so we can grow consensus and inspire action to change.

The Act requires us to uphold Te Tiriti o Waitangi/ The Treaty of Waitangi and give specific consideration to impacts for Māori. As an organisation we will endeavour to build meaningful and respectful relationships with Iwi/Māori.

About this advice on agricultural assistance

Agriculture is a major part of the emissions profile, economy, and landscape of Aotearoa New Zealand. Emissions from agriculture include biogenic methane from livestock and nitrous oxide from animal excreta and fertiliser use. In this document, we refer to these gases as 'agricultural emissions.' Agriculture accounts for 91% of biogenic methane emissions in Aotearoa, and 19% of long-lived gases.

Reducing agricultural emissions will be critical to achieving the target to reduce biogenic methane by at least 10% by 2030 and between 24 – 47% by 2050. Reducing nitrous oxide from agriculture can also make an important contribution to achieving the 2050 net zero target for all other gases.

By the end of 2022, the Government will need to prepare a report on how emissions from agriculture will be priced from 1 January 2025. This advice is one of several pieces of work that will help the Government to develop its report.

The Commission has been asked to look at what financial assistance, if any, might be necessary to support farmers and processors to face and appropriately respond to a price on their emissions.

Ministers asked for the Commission's advice on:

- What financial assistance, if any, is appropriate and necessary to provide to participants in an agricultural emissions pricing system
- Whether any groups of participants, in particular, will require financial assistance
- Specific methods of providing financial assistance to participants in the agricultural pricing system.

We have not been asked to provide advice on other forms of assistance that might be required – for example extension and planning support, research and development, and support to develop supply chains for alternative products. We did not assess recognising and rewarding on-farm carbon sequestration as a form of financial assistance.

This advice is being provided alongside the advice from He Waka Eke Noa on emissions pricing. We have been specifically asked to look at the methods of providing financial assistance which He Waka Eke Noa considered and other variations we considered relevant.

Financial assistance is a subset of using emissions pricing as part of climate policy. Whether and how financial assistance is provided will depend on the rationale for using and the method for calculating emissions pricing. We have produced this advice without knowing which approach to emissions pricing the Government will decide on, and what the prices will be for both biogenic methane and long-lived gases. As a result, the Commission does not have the information to advise the Government on whether and how much financial assistance is necessary and appropriate.

This advice focuses on a principle-based way for Government to consider whether financial assistance is necessary and appropriate, and different ways financial assistance could be used as part of pricing biogenic methane and nitrous oxide emissions from agriculture. Additional work will be required by Government to implement any system of financial assistance. That work is outside the scope of this advice.

What do we mean by assistance?

We have been asked to look at two types of financial assistance:

Structured assistance: this is provided to all participants on the same basis

Conditional assistance: this is provided to participants on an eligibility basis

The *Terms of Reference* we received from Ministers distinguishes between assistance that is provided on the same basis to all participants ('structured assistance') and assistance that is provided to participants on an eligibility basis ('conditional assistance').

Financial assistance could be provided directly to participants in the form of a rebate of levy revenues back to participants, or indirectly by reducing the price of emissions or requiring that only some of the participants' emissions must be paid for.

In addition to financial assistance, non-financial forms of assistance could be provided to participants to support them under a future agricultural emissions pricing policy. These could include extension and planning support, recognition of on farm sequestration, funding for research and development, and support to develop supply chains for alternative products. The assessment of, and need for non-financial forms of assistance, and the benefits of different approaches, is outside the scope of this request from Ministers.

Who do we mean by participants?

Emissions prices for agriculture could be charged to farmers directly, or to companies who process milk and meat. Because this advice is being provided before this decision has been made, we use the term 'participants' when this relates to either farmers or processors, and 'farmers' or 'processors' where this would apply to one but not the other.

Advice from He Waka Eke Noa partnership, being prepared at the same time as this advice, is focused on designing and developing a proposal for pricing emissions from agriculture outside the NZ ETS. In an alternative system, emissions could be priced either at a farm level or at a processor level. Under a farm-level system, the amount each farmer pays would be based on farm-level information. Under a processor-level system, emissions costs would be based on the amount of meat, milk or fibre processed, or fertiliser produced.

> *"This advice focuses on a principle-based way for Government to consider whether financial assistance is necessary and appropriate.*

The evidence base underpinning this advice

This advice draws on a significant body of pre-existing work, supported by engagement, modelling and analysis.

The Interim Climate Change Committee (ICCC) drew together a significant body of work on pricing agricultural emissions in 2019,[1] and this included an analysis of financial assistance,[2] but used the term *allocation*, rather. This analysis is largely enduring and forms the main foundation of the evidence provided in this short report.

We have also reviewed more recent evidence, primarily around the risk of emissions leakage, and conducted a literature review of material which has been published since the ICCC report. This literature review was also independently reviewed.[3]

We have also commissioned a literature review of the policies and targets for emissions reductions in agriculture that other countries have publicly committed to. This helped inform modelling to understand how these policies may affect the potential risks of emissions leakage if Aotearoa prices agricultural emissions.

To assess the methods of assistance set out in Part 2 we used a qualitative assessment based on the considerations required in the *Terms of Reference*. As part of this we have analysed the publicly available analysis and assessments from He Waka Eke Noa, along with materials supplied by Government officials.

To understand the potential impacts on Māori collectively-owned land we conducted a geospatial analysis of the characteristics of Māori collectively-owned land by region. This included looking at characteristics including landcover, Land Use Capability (LUC), size of land parcels – as well as governance structures.

These insights were compared to general title land. This helped us to identify key aspects of Māori freehold land, collective ownership, and governance/management that must be considered in our advice to ensure impacts for Iwi/Māori are given appropriate consideration. For this exercise we define 'Māori collectively-owned land' as all block data that is available through the 'Māori Land Spatial Dataset'.

We have also drawn on the evidence we collected though analysis and engagement to prepare *Ināia tonu nei*. Through our engagement and consultation on *Ināia tonu nei* one of the most common themes in submissions on agriculture was that faster action and more ambition for reducing agricultural emissions is needed, but that providing adequate support for farmers to transition will be crucial.

In addition to meeting kanohi kitea with Iwi/Māori as part of developing *Ināia tonu nei* we received written submissions and surveys from Māori through our 100 Coastie Voices campaign[4] on the key proposals put forward in the consultation draft.

While there was overall support for addressing climate change challenges, Iwi/Māori submitters raised concerns that Māori would be disproportionately impacted by climate action if the Government does not uphold its commitments and obligations to Te Tiriti o Waitangi/The Treaty of Waitangi and the Crown-Māori partnership in its response to climate change.

Submitters talked about the need to recognise legacy issues, the potential to compound impacts of managing Māori collectively-owned land, and the importance of ensuring Iwi/Māori are adequately resourced to participate in an equitable transition.

1. Interim Climate Change Committee 2019a
2. Interim Climate Change Committee 2019b
3. Pieralli 2022
4. 100 Coastie Voices Summary Brief (amazonaws.com)

We have built on our earlier engagement as part of developing this advice.

Towards the end of 2021 we held a series of four workshops targeted at rural professionals, local government representatives, Non-Government Organisations, and academics. We provided an overview of our tasks[5] and sought input from those who had a depth of understanding regarding what this advice could mean in practice. We asked participants what a 'fit for purpose' emissions pricing system might look like, and what the Commission should consider in its analysis. We asked them to think in general terms about agricultural pricing, and not just about the He Waka Eke Noa proposals that were being developed and consulted on.

Through these workshops, we learnt that there needed to be a clear definition of 'assistance' as financial, and what this might look like for farmers.

Across each group, people thought assistance should be provided to incentivise low emissions practices and/or land-use change to deliver co-benefits – such as enhancing water and native biodiversity, as well as reducing emissions. We also heard that assistance should only be provided in the short term – rather than ongoing.

All workshops felt that emissions pricing would have different impacts across different farming types, and that this should be taken into account. We heard that Māori land should be recognised separately, with NGOs and academics specifically referring to Te Tiriti o Waitangi/The Treaty of Waitangi implications and systemic disadvantage with regards to Māori land.

Acknowledging that the He Waka Eka Noa partnership was consulting on its proposals at this time, we attended six He Waka Eka Noa workshops as observers. This enabled us to hear how the He Waka Eke Noa work was being explained to farmers, and the questions they asked. We also held an online session with representatives from Te Aukaha, the Māori Agri-business Workstream of He Waka Eke Noa, to discuss specific challenges and differences for Iwi/Māori under an agricultural pricing mechanism.

> *Through our engagement and consultation on* Ināia tonu nei *one of the most common themes in submissions on agriculture was that faster action and more ambition for reducing agricultural emissions is needed, but that providing adequate support for farmers to transition will be crucial.*

5. These workshops discussed both this advice on agricultural assistance, and our coming advice on how ready we think farmers are for farm-level emissions pricing

We have considered a range of matters in developing our advice

Section 5M of the Act requires the Commission to consider, where relevant, a range of matters when providing advice.

For this advice, the following matters are most relevant:

- **current available scientific knowledge**

  Relevant when considering what scientific information is available to support implementing different methods of financial assistance. For example, the viability of the carrying capacity, and good management practice methods of assistance rely heavily on high quality geospatial and agricultural scientific information.

- **existing technology and anticipated technology developments, including the costs and benefits of early adoption of these in New Zealand**

  Relevant when considering the signals that various approaches to assistance can create. Predictable and transparent incentives are required for farmers and technology developers to invest in and adopt new emissions reducing practices and products.

- **the likely economic effects, and the social, cultural, environmental, and ecological circumstances, including differences between sectors and regions**

  Relevant when understanding the impacts of any decision for different sectors and regions. This is core to assessing if any assistance is required, and whether structured and conditional forms of assistance should be considered. Assessing the different methods of assistance has also involved analysing these differential impacts.

  Where different methods of assistance might lead to pressures on other environmental outcomes, such as freshwater quality, they are acknowledged.

- **the distribution of benefits, costs, and risks between generations**

  Bringing in agricultural emissions pricing and providing financial assistance to help with the transition will help Aotearoa to reach targets, and avoids leaving issues with agricultural emissions for future generations to worry about. Taking effective action now is required, efficient and just.

- **the Crown-Māori relationship, te ao Māori, and specific effects on iwi and Māori**

  Relevant when considering the circumstances of Māori collectively-owned land. This is considered in assessing the case for conditional assistance and also explicitly in analysing the implications of various assistance methods.

- **responses to climate change taken or planned by parties to the Paris Agreement or to the Convention.**

  This advice has looked at the international context of agricultural emissions pricing, with an examination of emissions leakage risks and potential impact with New Zealand's trading partners, that are also signatories to the Paris Agreement. Aotearoa will be a first mover globally with agricultural emissions pricing and adopting design features that provide a strong and credible example of correct action, is of utmost importance for our peers.

Pricing agricultural emissions will have impacts – and these need to be managed to deliver good climate outcomes

Introducing agricultural emissions pricing will have an impact for farmers and the wider agricultural sector. The *Terms of Reference* provided by Ministers requests that the Commission provide advice on what assistance, if any, is appropriate and necessary to provide to participants in an agricultural emissions pricing system, and whether any groups of participants, in particular, will require assistance.

1.1 Reasons why financial assistance might be necessary and appropriate

Pricing emissions creates an incentive to change behaviour by making emitters include the costs of the emissions in their decisions. This encourages participants to look for ways to reduce emissions that cost less to implement than the price on emissions. However, complying with pricing also imposes a cost on participants, which could cause widespread material financial hardship, especially if there are few options to take action.

When looking at providing financial assistance, it is important to balance whether the type and level of financial assistance will still retain the necessary incentives to reducing emissions. Some financial assistance methods maintain the intended price signal to reduce emissions, while others can dilute the incentive to make reductions, decreasing the overall effectiveness of the policy.

When considering pricing, it is important to determine whether full exposure to the emissions price would deliver a disruption that results in material financial hardship to participants. While this work does not provide guidance on desirable levels for emissions prices or financial assistance, the Government should assess the risks of financial impacts in a consistent way.

If material financial hardship to participants is caused by emissions pricing, farmers may be forced to either drastically alter their business practices, or ultimately exit the market. This may result in:

i. disruptive changes, especially for local communities; and/or

ii. the risk of emissions leakage (production moving offshore).

1.1.1

Managing disruptive changes

Without financial assistance, the overall cost of emissions pricing on farmers and/or landowners through an agricultural emissions pricing mechanism could affect the wider community through, for example:

- reduced spending by farmers on the businesses that service ruminant livestock farming
- reduced employment, resulting in reduced incomes across the community while raising stress and mental health issues in farm operations and rural businesses
- lower profits resulting in a reduced ability to service debt, and lower land values reducing the ability of farmers to raise capital for improvements, or support retirement
- changing whole farms to land uses with low employment such as permanent carbon forestry, which could negatively impact local communities.

These changes may affect population size in smaller communities which have limited alternative opportunities for employment. This in turn could negatively affect social institutions and reduce the broader social networks in the community and the ability to deal with stress from change. Financial impacts on farmers could also have consequent economic impacts for Aotearoa.

During our engagements, many farmers expressed a strong aversion to planting farmland in exotic forest. Some raised concerns for local communities, and for the future of the agriculture sector if that were to happen on a large scale. We note that the Government has recently consulted on forestry options, including on the eligibility for permanent post-1989 exotic forests to be included in the NZ ETS. We await the Government's decisions on this, and the potential results of that consultation have not been factored into this analysis.

The ICCC considered the need and role of financial assistance as part of its inquiry into agriculture in 2019. The Committee covered a range of reasons why financial assistance might be considered and concluded that the primary reason for providing free allocation to the agriculture sector is to help manage the social impacts of emissions pricing on farmers and rural communities.

Similarly, the Commission judges that some form of financial assistance should be considered, to limit disruptive changes and enable the agricultural sector's transition to contribute to statutory targets.

Is financial assistance necessary or appropriate?

We have identified the following reasons that have been put forward as to why financial assistance may be necessary or appropriate under emissions pricing:

a. enabling the agricultural sector to transition and contribute to statutory targets, while limiting abrupt and disruptive changes

b. reducing the risk of emissions leakage[6]

c. empowering the agricultural sector, by overcoming barriers to change and improving access to mitigation opportunities

d. recognising, rewarding, or at least not penalising those who are already delivering lower emissions products

e. providing compensation for stranded assets.

After reviewing the evidence and exercising our judgement, the Commission considers that:

f. structured financial assistance[7] is appropriate to limit disruptive changes and smooth the agricultural sector's transition to contribute to statutory targets

g. structured financial assistance may be appropriate to address emissions leakage to the extent it is not already mitigated by limiting disruptive change; however, this would require more refined assessment of leakage risk at the sub-sector level

h. structured financial assistance should recognise, reward, or at least not penalise those who are already delivering lower emissions outputs and products, and this should be factored into the methods used to provide financial assistance

i. structured financial assistance may be appropriate if there is a risk that pricing will create widespread material financial hardship for participants, which could have negative consequences for farmers, communities, the economy or global emissions.

In our judgement compensation for stranded assets should not be the basis for providing structured financial assistance to the agricultural sector alone. If the Government chooses to, it should consider whether there is a case for compensating for stranded assets across all sectors of the economy, not just agriculture.

6. Refer to Annex 1 for a description of emissions leakage.
7. As defined in the *Terms of Reference* for this work, "structured assistance" is a form of assistance that applies to all participants (i.e., is calculated as part of their emissions return).

1.1.2

Reducing the risk of emissions leakage

Emissions leakage is when pricing agricultural emissions results in some or all of the emissions reductions made in one country being offset by increased emissions in other countries due to a shift in production. If production in other countries is more greenhouse gas (GHG) emissions intensive, overall global emissions could increase if New Zealand's production is impacted by emissions pricing.

While there will always be a risk of emissions leakage when countries take action on climate change, the literature suggests that there is no consensus about whether production shifting from one country to the other would increase or decrease global GHG emissions and how much these changes to emissions would be. After assessing the available literature specific to agriculture[8] the risk of emissions leakage is highly uncertain but appears to be low for agriculture in Aotearoa in the near term.

Box 1: Interim Committee on Climate Change conclusions on emissions leakage

Based on the evidence available at the time, the ICCC found as part of its report on agricultural emissions that:

"In the near term, dairy [output] is unlikely to reduce significantly due to climate policy because it is a highly profitable land use compared to alternatives. Capital investments also mean production intensity is unlikely to drop rapidly. Even if New Zealand exports decreased, regions that could increase dairy production are mostly in Western Europe or North America (for example California). These have highly efficient, export-oriented production systems with emissions footprints of dairy production similar to ours.

Farmers in these locations also face significant environmental regulations (including pollution pricing) on nitrate, ammonia and phosphorus emissions. These countries have generally adopted economy-wide emissions caps, meaning that even if their agricultural emissions were to increase, other sectors of their economy would have to reduce their emissions even more. Putting all these factors together, the risk of emissions leakage for dairy appears to be low in the near term.

The drystock sector is potentially more responsive to emissions prices although the driver for land use change is likely to be because forestry is becoming more profitable, not because of a price on agricultural emissions. If a significant decrease in meat production were to occur, the risk of leakage is greater because not all of our competitors are developed countries with economy-wide emissions targets. However, New Zealand producers' increasing efforts to differentiate their products on quality, environmental credentials and provenance may moderate this risk."

8. See Technical Annex I.

In our engagements there was no agreement about the potential risk of leakage, with some citing the importance of financial assistance to maintain international competitiveness and trade while others expressed an opinion that the risk of leakage is often overstated.

Because emissions from agriculture have never been priced anywhere in the world, there is no empirical evidence on agricultural emissions pricing causing leakage. Aotearoa would be the first country to price agricultural emissions.

Only two studies have quantitatively assessed agricultural emissions leakage for Aotearoa, an OECD report[9] that combines Australia and New Zealand agriculture and a report commissioned by He Waka Eke Noa.[10] These results are not directly comparable and are dependent on the assumptions used in each analysis.

Using a general equilibrium model,[11] the OECD report found that as long as agricultural producers have access to and adopt emissions reduction technologies, pricing agricultural emissions always leads to a net reduction in global agricultural emissions. An emissions price, modelled as a tax of US$100/t CO_2e, was applied to agricultural emissions in Australia and New Zealand and resulted in global emissions reductions due to a combination of adopting mitigation technologies and reducing output.

The study defined a 'leakage rate' as the sum of the increases in agricultural emissions in countries without carbon tax policies, divided by the sum of the reductions in agricultural emissions in countries that implement mitigation policies. It found overall global emissions would be lower, but that by 2050 the leakage rate would be 55% suggesting that a little over half of the emissions reductions occurring in countries with carbon taxes would be offset by increases in emissions in countries which were not implementing agricultural mitigation policies.

The study also found that increasing the carbon tax from US$100 USD/t CO_2e to US$200 USD/t CO_2e or taking away the emissions reduction technologies increases the risk of leakage but global emissions still reduce.

The report prepared for He Waka Eke Noa examines changes in global emissions depending on whether competitor countries would adjust emissions in other sectors when agricultural emissions rise due to increased production as a result of Aotearoa producing less. The report considers the emissions efficiency of production both in Aotearoa and likely competitor countries. These countries are likely to have overall emissions reduction targets.

Three scenarios are presented:

a. increases in agriculture emissions are not offset by reductions in other sectors
b. 50% of the increase in agricultural emissions is offset by reductions in other sectors
c. all of the increase in agricultural emissions is offset by reductions in other sectors.

The report suggests that global emissions would increase in both the no offset and 50% offset scenarios. This result is driven by the assumption that the competitor countries' agricultural sectors are more emissions intensive than the production from Aotearoa it is displacing. Global emissions would stay the same if all the increase in agricultural emissions is offset by reductions in other sectors.

9. Henderson and Verma 2021
10. Denne 2022
11. A general equilibrium model shows how supply and demand interact and tend to balance in an economy of multiple markets working at once. The balance of competing levels of supply and demand in different markets ultimately creates a price equilibrium (where supply matches demand).

The report acknowledges the uncertainty in making predictions about leakage due to a number of factors. This includes the degree to which other countries will be able to adjust the emissions in non-agricultural sectors into the future to compensate for agriculture emissions levels. The report presents the 50% scenario as an arbitrary assumption to illustrate one scenario, and acknowledges that the risks of leakage will depend on a number of factors over which there is considerable uncertainty.

Overall, while this report provides some illustrative scenarios, the conclusion that global emissions would increase if Aotearoa priced agricultural emissions is entirely dependent on the assumptions chosen.

We commissioned modelling from the Agribusiness and Economics Research Unit (AERU) at Lincoln University[12] to better understand specific policies from competitor countries and the potential impact of these policies on agricultural emissions leakage under different levels of financial assistance. The intent of this study was not to understand the direct impacts of a given set of emissions pricing and financial assistance assumptions, but rather to understand the relationships between changes to production in Aotearoa and international competitors, given their climate policy goals. This modelling found that under the explored scenarios, pricing agricultural emissions in Aotearoa may reduce production domestically, but this does not necessarily increase global emissions. Other countries would not be able to take up all the reduction in output within the period analysed (out to 2050) given the assumed price elasticities (Box 2 and Technical Annex I).

After assessing the available evidence, we consider the risk of emissions leakage is highly uncertain, may vary by agricultural activity and over time, and may be mitigated by financial assistance that is provided primarily for other reasons. Any decision to provide financial assistance on the grounds of emissions leakage alone should be based on sound evidence about the materiality of emissions leakage risk and applied to individual agricultural activities.

Further discussion on the risk of emissions leakage is presented in Technical Annex I: Risk of Emissions Leakage.

12. AERU used the Lincoln Trade and Environment model (LTEM), a multi-market, multi-commodity partial equilibrium trade model, which maps global production and trade of 26 agricultural commodities.

Box 2: Modelling agricultural emissions leakage for Aotearoa

We have commissioned specific modelling on agricultural emissions leakage to assess, using a trade model, a range of scenarios for six commodities within the meat and dairy sectors over multiple countries for the period of 2021-2050. The commodities are beef, sheep meat, butter, cheese, whole milk powder, and skim milk powder.

While these scenarios help to better understand the uncertainty around agricultural emissions leakage, they are not intended to forecast policy outcomes, since agricultural emissions pricing policy details are yet to be determined. The scenarios all tested the same emissions prices to understand the implications of different levels of assistance on New Zealand's and the rest of the world's emissions. The prices chosen were illustrative, and were not set to achieve a specific emissions reduction target.

The modelling allows us to understand what might happen to domestic and global livestock emissions if Aotearoa priced agricultural emissions. Figure 1 below shows the change in livestock emissions in 2030 if emissions pricing is introduced with either high assistance (95%), medium assistance (60%), or no assistance to participants. Lower levels of assistance are expected to drive greater emissions reductions as the sectors are more exposed to the full emissions price. In all these scenarios the **emissions** price is the same, and the level of financial assistance varies.

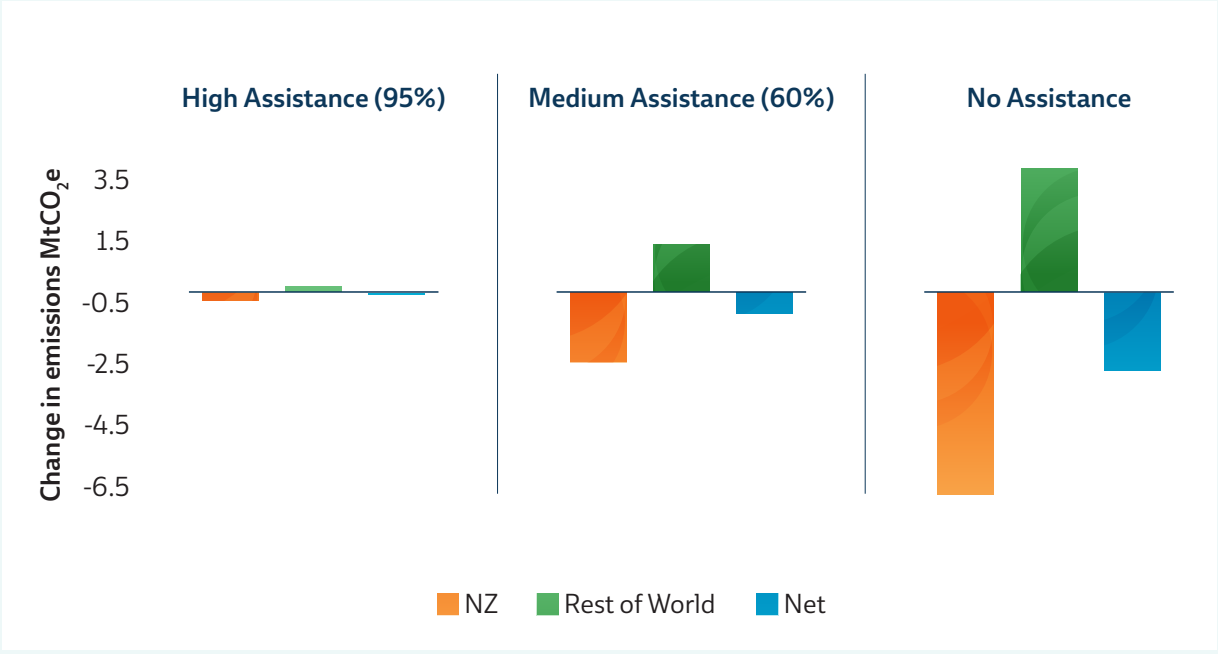

Figure 1. Change in livestock emissions ($MtCO_2e$) in 2030 for Aotearoa and the rest of the world if Aotearoa prices livestock emissions with high (95%), medium (60%) or no assistance provided. While production and emissions would increase in the rest of the world, overall livestock emissions are lower in all scenarios.

Box 2: Modelling agricultural emissions leakage for Aotearoa (continued)

As expected, as assistance levels fall across scenarios so too do domestic emissions in 2030. Livestock production and emissions reductions in Aotearoa are offset to some extent by greater output and emissions from other countries. However, the increase in emissions in the rest of the world is smaller than the reductions in Aotearoa, resulting in lower overall livestock emissions. The modelling predicts that the majority of the offsetting increase in livestock emissions would occur in countries which have taken all of economy targets and are parties to the Paris Agreement. As a result, any increase in livestock emissions in these countries would need to be offset by greater emissions reductions in other sectors.

This study focused on the changes in emissions in the six livestock commodities detailed above. It suggests that due to the reduced domestic production there could be implications for the global price of livestock products as a result of pricing agricultural emissions. However, further research would be required to understand how climate action in Aotearoa and other countries around the world has implications for food production and food security.

For further discussion and explanation of the scenarios modelled, see *Technical Annex I: Risk of Emissions Leakage.*

1.2 Assessing whether structured financial assistance is necessary

Structured financial assistance is where all participants receive financial assistance on the same basis. That does not mean that farmers receive the same rates or levels of assistance, necessarily. To determine whether structured financial assistance is necessary or appropriate depends on the expected risk that emissions pricing will create widespread material financial hardship for participants, and the risk that this will have negative consequences for farmers, communities, and global emissions.

Currently under the NZ ETS, decisions about which industrial sectors are eligible for free allocation (a form of financial assistance) are made based on emissions intensity, calculated as tonnes of carbon dioxide equivalent emissions for each million NZD worth of revenue, and their trade exposure status (whether it is possible to import or export the product).[13] Sectors that are deemed to be emissions intensive and trade exposed (EITE) are currently eligible for either 58% assistance or 88% assistance depending on the emissions intensity profile of the sector. This approach was adopted to address the risk of emissions leakage and "economic regrets" from the loss of domestic production that would be viable once our competitors had more ambitious climate change policies.

Currently under the Act if agricultural activities faced an emissions price under the NZ ETS, they would be unconditionally eligible for free allocation with a level of assistance of 95% and a fixed phase-out of 1% per year (currently suspended).

The context for providing financial assistance to agricultural activities under emissions pricing is different from that historically applied to EITE industrial producers in the NZ ETS. Furthermore, there is a question as to whether the approach to free allocation for agriculture in the NZ ETS as currently legislated would be adequate or appropriate to address the complex transition facing the agriculture sector in the context of the split-gas statutory targets and the differences across agricultural activities.

When assessing eligibility to receive financial assistance, and the level of financial assistance for agricultural emissions, policy makers should consider the emissions intensity, trade exposure, and adaptability to change of individual agricultural activities listed under Part 5 of Schedule 3 of the Act.

In addition to considering the emissions intensity and trade exposure metrics, there are other relevant factors for agriculture that should be included in any assessment. These include the cost and suitability of mitigation options, the actions being planned by competing countries, and the ability to differentiate within a value chain by demonstrating environmental credentials.

13. An activity qualifies as trade exposed unless there is no international trade of the output of the activity across oceans or it is not economically viable to import or export the output of the activity.

Is financial assistance necessary or appropriate?

We advise that:

a. Policy to reduce emissions in line with Aotearoa New Zealand's domestic and international targets will impose costs and create opportunities and there will be changes across all sectors as part of the transition. The Government should carefully consider if it is desirable and practical for participants to expect that all the impacts of the transition are compensated.

b. Pricing agricultural emissions will impose costs on participants to pay for the emissions they continue to emit. This cost could be large relative to profitability, and may impose material financial hardship on some participants, but would vary by sector and farm.

c. Financial assistance can have the positive effect of preserving marginal prices for emissions to influence participants' behaviour, without imposing widespread material financial hardship on farmers.

d. If emissions pricing is expected to have a widespread material financial impact, financial assistance should be strongly considered. This will reduce the risk of negative socio-economic impacts such as reduced employment, unserviceable debts, and large-scale land use change which could affect the viability of mainly rural communities, and consequent economic effects.

e. Providing financial assistance can also reduce the risk of emissions leakage. After assessing the available literature, we consider the risk of emissions leakage is highly uncertain.

f. The Climate Change Response Act 2002 contains default provisions for free allocation for eligible agricultural activities under the NZ ETS. We advise careful evaluation before applying this approach in a new emissions pricing system for agriculture.

g. Decisions on eligibility to receive assistance and the level of assistance should be informed by assessment of the emissions intensity, trade exposure, and adaptability to change of agricultural activities listed under Part 5 of Schedule 3 of the Climate Change Response Act 2002.

h. In addition to considering the emissions intensity and trade exposure metrics, government should also consider other relevant factors for agriculture including (but not limited to):

    a. the cost and suitability of mitigation options,

    b. actions being planned by competing countries, and

    c. the ability to differentiate within a value chain by demonstrating environmental credentials.

i. The need for structured financial assistance should be regularly assessed and take into account updated information on progress towards targets, the expected financial impact on agricultural subsectors of the emissions price, the cost and availability of mitigation options, the cost of emissions that are difficult to reduce, and the risk of emissions leakage offshore.

1.3
Using conditional financial assistance where there are severe and uneven impacts

In addition to providing structured financial assistance to all participants, there may be a case for conditional financial assistance to help mitigate severe or uneven impacts or overcome barriers to participation. Conditional financial assistance could be provided to participants within a sector of agriculture, for example sheep and beef farming, where there is a higher likelihood of material financial hardship that causes abrupt and disruptive change, or where there are other factors that mean structured financial assistance does not address the greatest risks.

Special consideration should be given to providing conditional financial assistance to Iwi/Māori who may be disproportionately impacted by agricultural emissions pricing due to the nature of their land ownership and land management structures.

Beyond whenua Māori entities, the Commission is not able to identify specific groups or criteria for providing conditional financial assistance as the distribution of impacts across participants will be determined by a range of factors including the price of emissions, the level of structured financial assistance provided, and the method of financial assistance chosen.

As part of their analysis for the 2019 report the ICCC published *Technical Appendix 5: Free allocation for agriculture*,[14] which provides a comprehensive overview of how different methods of financial assistance can impact farmers producing the same products due to a range of farm-level emissions intensities. While the ICCC work should not be used to directly point to certain segments of different subsectors it clearly displays how uneven impacts of the same approach can be due to variation within a subsector.

During our engagements, there was general agreement that financial assistance should be differentiated, but with widely ranging views on the basis for this conditional approach. The most common reason given in support of conditional financial assistance was to buffer against widespread social impacts and protect farmer wellbeing during the transition to achieving the 2050 biogenic methane emissions target.

14. Interim Climate Change Committee 2019b

Factors suggested as the basis for conditional financial assistance included emissions reduction potential and farming types, and subsequent options available to farmers, farm vulnerability and farmers' need. Te Tiriti o Waitangi/The Treaty of Waitangi implications and systemic disadvantage and barriers of Iwi/Māori collectively-owned land were also cited as a basis for differentiation.

Clear objectives for conditional financial assistance should be set out, with clearly defined rules for eligibility based on transparent criteria. For both conditional and structural assistance, any changes to the financial assistance provided should be clearly signalled well in advance, to enable farmers to factor changes into their production, and other business decisions. Changes to the level of financial assistance provided should not be made at short notice, or based on ad hoc or arbitrary decisions.

Recognising that the need for financial assistance will change as the agriculture sector transitions to adopt lower emissions technology and processes, and as agricultural emissions pricing changes internationally, the rate at which financial assistance will change should be well signalled and publicly available.

The ICCC identified these important factors to consider when deciding how financial assistance levels[15] will change over time:

- Staying within emissions budgets as they fall over time
- The costs to the taxpayer since assistance given to farmers could be used elsewhere for potentially greater public benefit
- Changing justification for assistance or levels.

The ICCC noted that *"Any change to the level of free allocation should be informed by robust, objective analysis. This should involve an assessment of whether the reasons for free allocation are still valid. Part of this would be to look at the likely consequences on rural land values and profits, more detailed consequences for rural employment, demographics and social services, and emissions leakage."*[16]

15. The ICCC used the term *allocation* rather than financial assistance to refer to the same policy design feature.
16. Interim Climate Change Committee 2019a

1.4
Barriers imposed on Māori collectively-owned land

For various reasons, including the historic disruption of Māori land ownership, many Māori collectives participate in primary industries in Aotearoa. Māori collectively-owned land is defined here as any land that falls within the Māori Land Spatial Dataset created by the Ministry of Justice and Ministry for Primary Industries on behalf of the Māori Land Court. This does not cover all land that may be owned or managed by people or groups that identify as Māori.

Māori collectively-owned land is estimated to comprise about 1.4 million hectares in Aotearoa with about $24 billion in primary sector assets.[17] This includes 40% of the country's forestry, 30% of its lamb production, 30% of its sheep and beef production, 10% of its dairy production and 10% of its kiwifruit production.

Māori collectively-owned land faces different constraints and challenges to general title land ownership and management structures. In part, this is due to the capability of the land retained and historic disruptions impacting on Māori collectively-owned land management and ownership. These circumstances are recognised in the Te Ture Whenua Māori Act 1993, the legislation under which it is still governed.

The impact of these policy-based and other disruptions over time have disadvantaged Iwi/Māori; consequently the remaining Māori collectively-owned land and land returned through Te Tiriti o Waitangi/The Treaty of Waitangi settlement process (all ancestral land) have left Iwi/Māori, in the main, with steeper, less versatile land. About 76% of all Māori collectively-owned land is considered marginal land (Land Use Capabilities of 6, 7 and 8) and many parcels of Māori freehold land are small and fragmented.

Governance arrangements for Māori collectively-owned land, for example, those established under Te Ture Whenua Māori Act 1993, are often complex. Disruptions to ownership, governance, and land management have impacted on the consistent optimal utilisation of Māori collectively-owned land. The Ministry for Business, Innovation and Employment estimates that one third of Māori freehold land has potential for development or increased utility.

In terms of productive potential, Māori collectively-owned land is over-represented in marginal quality land, and under-represented in quality land.
We expect:

- a range of existing and historic challenges, relating to land quality and Māori collectively-owned land management, that could create distinct barriers for Māori-collective farmers to change on-farm practices over and above current farm systems[18]
- development opportunities may be limited for transitioning land use and scale can be an issue due to the range of block sizes.[19]

We also observe that:

- Māori collectively-owned land may have one management structure, but the land is not always contiguous – non-contiguous Māori freehold land blocks are more likely to be put in lease arrangements where the owners or management structures are simply passive income earners and have limited decision making input regarding the use of their land[20]
- decision-making can be challenging in organisations where governance is determined by whakapapa, which can result in governance and management profiles that range in experience, capability, and expertise.[21, 22] Under Te Ture Whenua Māori Act, 75% shareholder approval is required for some key decisions; this can be challenging when many owners are unknown[23]

17. Māori Land Court 2020. This does not necessarily include all land within post-settlement governance entities (PSGE) as this can include general freehold land that is not included within the Māori Land Court Spatial Dataset.
18. Coffin 2016
19. He Pou a Rangi Climate Change Commission 2021
20. He Pou a Rangi Climate Change Commission 2021
21. Coffin 2016
22. Dewes, Walzi, and Martin 2021
23. New Zealand Government 1993

- Māori collectively-owned land faces additional conditions when used as collateral to secure bank loans, such as higher interest rates or additional security over other assets. This impacts the ability to respond by changing either land use or by changing farming systems/behaviour.[24]

In addition, many Iwi/Māori have reduced the intensity of their production in line with a te ao Māori view. As we noted in *Ināia tonu nei*, *"when agricultural emissions are priced, [assistance] should be provided in a way that does not disadvantage operators who were already managing resources in alignment with their kaitiaki values."* Any legislation that 'benchmarks' environmental performance based on intensity of the current use lowers the flexibility of less intensively used land.

Further, *Ināia tonu nei* laid out key principles for a low emissions transition strategy, with an important element being that the path Aotearoa takes should aim to reduce or even reverse inequities on different groups of society, and mitigate against compounding historic grievances for Iwi/Māori.

Are there any groups or people that will need additional conditional assistance

We advise that:

a. Conditional financial assistance[25] may be needed as a short-term transition measure to help mitigate severe or uneven impacts of emissions pricing or overcome barriers to participation.

b. Conditional financial assistance must be accessible to those most in need, while maintaining incentives for emissions reductions. The Government could deliver assistance by providing it automatically if a set of criteria are met.

c. While conditional financial assistance could be provided to individual farmers, it may be more effective for the Government to provide it to groups or collectives of farmers rather than to individuals.

d. Consideration should be given to providing conditional financial assistance to whenua Māori entities that may be disproportionately impacted by agricultural emissions pricing due to land tenure and management structure restrictions.

e. Beyond whenua Māori entities, in the absence of an in-principle decision for the emissions pricing mechanism and objectives for financial assistance, the Commission is not able to identify specific groups or criteria for providing conditional financial assistance.

f. Clear objectives for conditional financial assistance should be set out, with clearly defined rules for eligibility based on transparent criteria. Any system of conditional financial assistance should consider the overall affordability of the system and ensure fair and consistent treatment.

g. The need for conditional financial assistance should be regularly reviewed to assess whether it continues to be necessary and appropriate.

24. Dewes, Walzi, and Martin 2021
25. As defined in the *Terms of Reference* for this work, "conditional assistance" is a form of assistance that is provided to participants on an eligibility basis.

Methods of providing financial assistance

The *Terms of Reference* provided by Ministers requests that the Commission analyse the financial assistance methods set out in Annex II of the *Terms of Reference* against specific considerations. More detailed information on how the Commission assessed the methods of financial assistance is also provided in *Technical Annex II: Methods of Financial Assistance*.

2.1 The methods of assistance

Table 1 summarises our understanding of how the methods of financial assistance operate under a system of farm-level pricing. The *Terms of Reference* also noted that under a system of processor-level pricing, financial assistance could be provided directly to processors or directly to farmers. These methods were not specified in the *Terms of Reference*. This report also considers the two options raised by the ICCC for providing financial assistance if pricing were introduced at the processor level: output-based and proportional discount methods.

> *We have qualitatively assessed each method of financial assistance against the considerations provided.*

2.2 The considerations

The considerations we must assess these methods against are:

- [whether it] creates effective incentives for and achieves emissions reductions that contribute to meeting New Zealand's emissions budgets and targets in the Act
- the practicality of implementation for farmers and growers, and the regulator
- any social and distributional impacts on farmers and communities
- the impacts on Iwi/Māori interests, particularly where these might be disproportionate
- the risk of emissions leakage.

The considerations provided by Ministers closely align with the factors that the Commission must consider when providing any advice to government, as specified under section 5M of the Act.

2.3 Approach to assessing methods

We have qualitatively assessed each method of financial assistance against the considerations provided. For each consideration we have identified a specific indicator to guide how well each method aligns with the consideration. This assessment is summarised in Table 2 below with further detail available in *Technical Annex II: Methods of Financial Assistance.*

For consistency a score of '⊕' indicates the method is not aligned or poorly aligned with meeting the consideration while a score of '⊕⊕⊕⊕' indicates the method is highly aligned with meeting the consideration. A score of '⊕⊕⊕⊕' under social and distributional impacts indicates there are *low* social and distributional impacts. A score of '⊕⊕⊕⊕' for emissions leakage indicates the method would be highly aligned with avoiding the risk of emissions leakage.

Table 1: Methods of financial assistance at the farm level

Type	Method	Description
Price all emissions	Fully exposed, low price	Participants pay a price for each tonne of emissions they produce. The price would be set at a lower level compared to, for instance, the price of NZUs, to reduce the risk of material financial hardship on participants.
Price all emissions accompanied by a rebate	Historic baseline	Participants pay a price for each tonne of emissions they produce. Participants receive a fixed rebate based on a portion of their emissions in a fixed year.
	Rolling average	Participants pay a price for each tonne of emissions they produce. Participants receive a rebate based on a portion of their emissions averaged over a recent period of time. This is similar to the historic baseline method, but the rebate amount would shift over time.
	Carrying capacity	Participants pay a price for each tonne of emissions they produce. Participants receive a rebate based on a portion of their emissions based on a calculation of the carrying capacity of the land. This requires an assessment of the carrying capacity of each farm within the system based on the size, terrain and other characteristics. Carrying capacity – as opposed to calculating a rebate solely on land area – is necessary to avoid the perverse incentives that would favour extensive farms over intensive farms in the absence of a qualifier based on land characteristics.
	Output-based	Participants pay a price for each tonne of emissions they produce. Participants receive a rebate based on a calculation using an emissions factor per unit of product of their product type. This requires creating national emissions factors per unit of each product type.
	Land and revenue hybrid	Participants pay a price for each tonne of emissions they produce. Participants receive a rebate based on a portion of their emissions unique to that farm based on their emissions per unit of area relative to all other participants. The discount rate could be varied by further factors, such as revenue-based emissions efficiency. This requires both an assessment of the farm area and an assessment of emissions factors for revenue.

Type	Method	Description
Price only a proportion of emissions	Proportional discount	Participants pay a price for only a proportion of the emissions they produce. This proportion would be set by Government.
	Good management practices	Participants pay a price for only a proportion of the emissions they produce. This proportion would be determined based on their calculated emissions and what their emissions would have been otherwise, if a prescribed set of desirable actions was taken, without reducing production. This requires an understanding of each farming system and the mitigation actions that are available to the participant within that system. This could allow the price per tonne of emissions to be higher than in the *Fully exposed, low price method*, to more effectively influence participants' behaviour and incentivise reductions, while reducing the risk of material financial hardship on participants.
	Target baseline	Participants pay a price for only a proportion of the nitrous oxide emissions they produce, which are subject to the target of net zero long-lived gases under section 5Q of the Act. This proportion would be determined by setting a pathway to achieve the long-lived gases target and any nitrous oxide emissions over that pathway would incur a price.

Table 2: Assessment of the methods of structured financial assistance

Method	Achieves emissions reductions	Practicality to implement	Social and distributional impacts	Impact on Māori collectively-owned land	Risks of emissions leakage
Indicator	Emissions reduction by 2030	Availability of information Cost to implement	Minimises risk of widespread material financial hardship	Equity impacts to Māori collectively-owned land	Minimising production impacts on the sector
Methods of structured financial assistance if pricing occurs at the farm level					
Fully exposed, low price	+	++++	++++	++++	++++
Carrying capacity	++++	++	++	+++	++
Good management practices	++	+	++++	++	++++
Historical baseline	++++	+	+	+	+++
Land & revenue hybrid	++++	++	++	++++	++
Output-based	+++	+++	++	+++	+++
Proportional discount	+	++++	++++	++++	++++
Rolling average	++	++++	+++	+	+++
Target baseline	++	+	++++	++	++++
Methods of structured financial assistance if pricing occurs at the processor level					
Assistance to processors (output-based or proportional)	+	++++	++ - ++++ (depending on approach)	+++	+++
Assistance to farmers (output-based or proportional)	++	++	++ - ++++ (depending on approach)	+++	++++

2.4
Methods of assistance if emissions are priced at farm level

Of the methods of financial assistance, the **fully exposed**, **low price** and **proportional discount** options would be practical to implement but would not retain the full marginal price incentive for emissions reductions required to reach desired outcomes. In reducing the total cost impact on participants these methods would reduce the marginal incentive for emissions reduction by lowering the effective price on emissions. With a low marginal price on emissions, this method is unlikely to incentivise on-farm behaviour change. A "low" price in this instance is used to refer to an emissions price that would not create widespread material financial hardship that leads to abrupt and disruptive change, and is also unlikely to help Aotearoa New Zealand achieve its targets.

The **rolling average** method adjusts financial assistance to farmers based on average emissions over a period of time. As this is based on a farmer's recent emissions, if a farmer reduces emissions their financial assistance will also reduce, but over a number of years. While this approach will smooth out the pricing impact, by keeping the rebate calculation based on recent historical emissions the incentive to reduce emissions is diluted.

Providing financial assistance using the **historical baseline** method would provide the full marginal price incentive for farmers to reduce emissions. However, this method would unfairly disadvantage farmers who face barriers to developing their land due to land tenure constraints, e.g. whenua Māori. This option also rewards farmers with high recent emissions and may penalise farmers who have already made improvements and reduced their emissions.

We also have concerns about the practicality of implementing a historical baseline method. The historic emissions for each farm would have to be estimated in a consistent way. Alternatively, if the baseline was set using a future year's emissions this might encourage farmers to increase emissions in order to receive more financial assistance, increasing total gross emissions in the short term.

There are significant practicality challenges with implementing both the **target baseline** and **good management practice** options at a farm level. The target baseline as defined in the *Terms of Reference* is only for nitrous oxide emissions, and so would provide no incentive to reduce biogenic methane. The good management practice method would require detailed and accurate emissions factors for each action that reduces emissions. We understand that this is challenging given the state of current research. It would also require an assessment of the available actions that could reduce emissions on each farm. These would need to be regularly assessed and audited, creating a substantial ongoing administrative burden.

We consider that both these methods would be impractical to implement in time for emissions pricing to start in 2025 without major investment.

In addition, for these two methods we understand that emissions below the baseline would not be priced. This would provide no incentive for farmers who could undertake further actions to reduce their emissions below the baseline.

Output-based assistance would provide financial assistance proportional to the output (for example, milk or finished stock) of each farm. If farmers can reduce emissions while maintaining production their financial assistance would not reduce. This would maintain the full marginal price incentive to improve emissions intensity of agricultural production. If farmers chose to reduce their emissions by producing less, this would reduce their financial assistance. Therefore, the incentives for reducing emissions via reduced output are lower.

This also means that output-based financial assistance would provide stronger incentives to retain production and protect against the risk of emissions leakage. In addition, because financial assistance is based on current output, this would not disadvantage those landowners, including Iwi/Māori, who choose to further develop their land.

The incentive to reduce absolute emissions is greatest for farms with the highest emissions intensity, and lowest for those with the lowest emissions intensity. The ICCC found that output-based financial assistance would provide incentives for some lower intensity farmers to increase their output but the degree to which this occurs will depend on other factors relevant to their ability to expand production, including freshwater regulations.

There is an implementation challenge related to providing financial assistance to those farms which do not have a final output of finished stock. The ICCC identified this issue and ways in which this could be addressed. These include using a proxy for output, based on animal numbers. Estimation of animal numbers is expected to be a component of any farm-level emissions pricing system.

The **carrying capacity** option (also referred to as the land based option) would base financial assistance to farmers on the area and quality of land they farm. This would benefit those farms with lower stocking rates and lower emissions per hectare. This method would retain the full incentive for farmers to reduce emissions by improving the emissions intensity of their farms and through reducing output.

There are implementation challenges with this method being ready for pricing to start in 2025 as a measure of the carrying capacity of each farm would need to be created. It would take some time to develop this as it would likely need to incorporate a range of factors to fairly represent the carrying capacity of each farm. However, there may be other benefits from a national map of carrying capacity, which should be considered in deciding whether to pursue this option.

If the Government wants to pursue developing the *carrying capacity* option this should not delay a pricing system for agricultural emissions being put in place by 1 January 2025.

The **land and revenue hybrid** method would use both a farm's emissions per unit of land and a measure of emissions efficiency per unit of revenue to calculate the financial assistance to each farmer. We understand this method builds upon the land and output method of assistance that was recommended by the ICCC. While this method would retain the full marginal price incentive for emissions reductions, a concern is that using revenue as a proxy for output would be subject to greater fluctuation. This may mean that financial assistance to farmers would vary year to year due to changes in prices for agricultural outputs.

> *Basing assistance on a farm's output means a farmer pays for all their emissions, but they get assistance with that cost based on their rate of production. This results in farmers being incentivised to reduce their emissions while maintaining or improving productivity.*

2.5
Methods of financial assistance if emissions are priced at the processor level

If pricing were introduced at the processor level, financial assistance could be provided to processors. This would involve significantly fewer participants than if pricing were implemented at a farm level. Therefore assistance to processors is likely be significantly more practical to implement than assistance to farmers. When it considered a processor-levy pricing system, the ICCC considered two approaches to providing financial assistance to processors: a proportional-based method and an output-based method. These would operate in a similar manner to the equivalent farm-level methods discussed above.

The ICCC found that both methods resulted "in identical incentives and cost impacts."[26] This is because at the processor level both emissions and financial assistance are calculated based on output (emissions per kilograms of milk solids or kilograms of meat).

Where output-based and proportional-based methods differ is where it is possible for processors to prove if their suppliers (or the suppliers themselves if financial assistance is provided to farmers) are undertaking actions to reduce emissions on farm, which would reduce their emissions below the national average. Under an output-based method, processors may then be able to claim a reduction in emissions while retaining their financial assistance.

Another option would be to price emissions at the processor level but provide the assistance directly to farmers based on their output. This option could provide greater incentives for emissions reductions than proportional discount. However, implementing this would face the same difficulties as a farm-level pricing system, require involving all processors and all farms within the system, that are avoided by pricing at the processor level.

> *Providing certainty about when and how emissions from agriculture will be priced, and what assistance could be provided, will give farmers the information and confidence they need to plan for lower emissions practices.*

26. Interim Climate Change Committee 2019a, page 95

The different ways assistance could be used to support agricultural emissions pricing

The Commission has been asked to consider specific assistance methods for emissions pricing as set out in the *Terms of Reference*. We have considered their practicality for implementation by 1 January 2025.

If emissions are priced at the farm level

We assess that:

a. Providing assistance using the *low price, proportional discount,* and *rolling average* methods outlined in the *Terms of Reference* would not retain the full incentive to reduce emissions that is required to reach the desired outcomes.

b. The *target baseline* and *good management practice* methods set out in the *Terms of Reference* are challenging to define at a farm level, are unlikely to be implementable, and would provide no incentive for individual farmers to reduce their emissions below the baseline level set for their farm.

c. The *historical baseline* method would unfairly disadvantage farmers who face barriers to developing their land due to land tenure constraints, e.g. whenua Māori entities. This method also rewards farmers with high recent emissions and would penalise farmers who have already made improvements to reduce their emissions.

We advise that:

a. If agricultural emissions are priced at the farm level from 1 January 2025, the *output-based* method for assistance would be practical to implement and would retain the full marginal incentive for reductions in emissions intensity.

b. The *output-based* method could provide an incentive for some farmers to increase output, but the degree to which this occurs would depend on other factors, including freshwater regulations.

c. Some implementation issues for the *output-based* method would apply to those farms which do not have an output of finished stock on which to base their assistance. However, there are a range of ways that this issue could be addressed, but further work would be necessary by Government.

d. While the *carrying capacity* option would retain marginal price incentive for both emissions intensity and absolute emissions, it is unlikely that the work required to make this practical would be ready in time for farm-level pricing to start from 1 January 2025. We also consider that, on its own, this approach would be less effective at managing transition risks to communities and leakage risks than the *output-based* approach.

e. If the Government wants to pursue developing the *carrying capacity* method this should not delay a pricing system for agricultural emissions being put in place by 1 January 2025. *Carrying capacity* could be used alongside the *output-based* method to create a hybrid approach, as recommended by the Interim Climate Change Committee, once the necessary information infrastructure is in place. This has the potential to mitigate leakage risk while maintaining more incentive to reduce absolute emissions.

If emissions are priced at the processor level

We advise that:

a. If assistance is provided to processors, the *proportional discount* and *output-based* assistance options would both provide the same incentive to reduce emissions.

b. If assistance is provided to farmers, the *output-based* assistance method could provide greater incentives for emissions reductions than *proportional discount*. However, implementing this would face the same difficulties as a farm-level pricing system, that are avoided by pricing at the processor level.

Considerations for Government

This advice is being provided at the same time as He Waka Eke Noa is providing its advice on emissions pricing to help inform Government decisions on how agricultural emissions should be priced.

In making those decisions, we believe it is helpful to be explicit about the objective of emissions pricing for agriculture, and to set clear principles to evaluate agricultural emissions pricing options against. This will support the Government in making explicit the trade-offs which are required in making any decision on pricing agricultural emissions.

To propose the objective principles for agricultural emissions pricing we have drawn on the Commission's previous advice in *Ināia tonu nei,* which set out principles for a low emissions transition.

27. Domestic targets are to reduce biogenic methane by at least 10% by 2030 and 24-47% by 2050 and beyond, compared to 2017 levels and to reduce emissions of greenhouse gases, other than biogenic methane, to net zero by 2050 and beyond.
28. These include but are not limited to the 2015 Paris Agreement, the 2030 Agenda for Sustainable Development, New Zealand's trade treaties, and the UN Declaration for the Rights of Indigenous Peoples.

Objective and principles for agricultural emissions pricing

We advise that:

1. The objective of agricultural emissions pricing policy should be to encourage and support, alongside other policies, reductions in gross emissions of both biogenic methane and long-lived gases from agriculture, in line with meeting Aotearoa New Zealand's statutory targets for emissions reductions.[27]
2. In achieving this objective, the policy should ensure that the Crown's obligations under Te Tiriti o Waitangi/The Treaty of Waitangi are upheld and relevant international commitments are recognised.[28]
3. Emissions pricing should be part of a broader suite of policies to encourage emissions reductions in agriculture. As we recommended in *Ināia tonu nei* these include:
    a. Supporting farmers and growers to identify and implement changes on farm
    b. Removing barriers to new technologies
    c. Helping proven low emissions food and fibre products access domestic and international markets
    d. Investing to create options to reduce emissions further in future
4. Agricultural emissions pricing policy options should be evaluated against the following principles:
    a. Practical: able to start pricing emissions from 1 January 2025 in a way that encourages active participation and can be enforced.
    b. Broadly supported: has sufficient buy-in from the sector and is seen as reasonable by New Zealanders.
    c. Efficient: avoids unnecessary administration and aligns with existing systems and processes as far as possible. If emissions pricing were used to raise revenue to fund a broader set of emissions reduction activities, it should be considered against other methods of revenue raising.
    d. Equitable: acknowledges the varied circumstances facing different agricultural activities and participants and the implications for the broader economy and future generations. This includes recognising the land tenure restrictions and specific challenges faced by whenua Māori (collectively-owned) farming entities, as well as broader impacts on Iwi/Māori.
    e. Effective: creates clear long-term incentives that support investments and changes to deliver emissions reductions in line with meeting statutory targets. Methods of calculating emissions must be able to capture changes on farm that result in emissions reductions. Policy seeks to avoid emissions reductions in Aotearoa resulting in increased global emissions.
    f. Comprehensive: recognises and encourages, where possible, emissions reductions which count towards meeting domestic and international targets from changes to farm management practices, production and land use.
    g. Well-aligned: creates a system that supports and is actively aligned with other climate policies, non-climate environmental policies, and other social and economic policies. Does not duplicate, undermine, or conflict with, the incentives for emissions reductions created by the NZ ETS. Reinforces co-benefits and avoids perverse outcomes.
    h. Adaptable: performance should be monitored and evaluated so that the policy can be adjusted to ensure it continues to meet its objectives. The policy is adaptable to take account of future changes in domestic targets, international context and developments in mitigation options for agricultural emissions.
    i. Transparent: puts clear and predictable processes in place for how decisions to adjust the policy will be made.

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He Pou a Rangi
Climate Change Commission

Level 21, 1 Willis Street
Wellington 6011
PO Box 24448
Wellington 6142

www.climatecommission.govt.nz