Executive Summary

He Waka Eke Noa Agricultural emissions pricing options

February 2022

This summarises the consultation document on agricultural emissions pricing options published by He Waka Eke Noa, the Primary Sector Climate Action Partnership, in February 2022. You can find the full consultation document, supporting technical reports and an online feedback form at **https://hewakaekenoa.nz/your-say**.

New Zealand's agricultural sector has a role to play in reducing greenhouse gas emissions while remaining profitable and internationally competitive.

Consumers are increasingly demanding products with a low environmental impact. While New Zealand is in the unique position of being among the most carbon-efficient farmers in the world, New Zealand farmers are determined to keep improving.

Pricing agricultural emissions is a priority for the Government and agriculture is the only sector that is not currently in the New Zealand Emissions Trading Scheme (NZ ETS). In 2019, the Government decided to price agricultural emissions and asked the Interim Climate Change Committee (ICCC) to advise on how this could be done through the NZ ETS.

Agricultural sector leaders didn't believe the NZ ETS proposal put forward by the ICCC was the best option. Sector leaders proposed that the Government work in partnership with industry and Māori to design an alternative that would achieve better outcomes for New Zealand and the agricultural sector. This proposal was called He Waka Eke Noa (we are in this together) – Primary Sector Climate Action Partnership (the Partnership). This was formally agreed in late 2019 by the Government, industry, and Māori.

New Zealand will be world leading as the first country to price agricultural emissions. The Partnership is committed to designing a pricing system that ensures New Zealand's agricultural products remain internationally competitive while reducing national and global emissions.

What is He Waka Eke Noa – Primary Sector Climate Action Partnership trying to achieve?

He Waka Eke Noa is developing a practical framework to support farmers to measure, manage and reduce agricultural emissions: biogenic methane (CH_4), nitrous oxide (N_2O), and carbon dioxide (CO_2). This includes an approach to recognising on-farm sequestration and other potential mitigations, and an effective system for pricing agricultural emissions from 2025.

The Partnership recognises that creating incentives and opportunities to reduce on-farm emissions requires a broader approach and framework than just focusing on a system for pricing emissions.

Te Aukaha, led by the Federation of Māori Authorities, provides input from a Māori farmer and grower perspective into the Partnership to ensure the support of the land-management aspirations of Māori farmers.

As part of He Waka Eke Noa, the Partnership will provide recommendations to the Government on a framework for an appropriate pricing system for agricultural emissions in April 2022. This will be an alternative to the default 'backstop' that agricultural emissions are priced through the NZ ETS.

What's important in a pricing system option?

He Waka Eke Noa is a partnership that builds on the experience and expertise of Māori, government, and the primary sector. Our goal is to design a system that is:

- Effective – reduces agricultural emissions in total and per unit of product
- Practical – clear and simple system that minimises administration costs
- Credible – scientifically robust (includes mātauranga Māori) and transparent
- Integrated – aligns with wider sector and government objectives and activities
- Equitable – recognises early adopters and has 'equitable' impacts across the agricultural sector.

In addition to these criteria, all government actions taken to address climate change must uphold the principles of Te Tiriti o Waitangi, to avoid further inequity resulting from addressing climate change.

Partnership Options

He Waka Eke Noa partners will ask farmers and growers about policy options before giving advice to the Government. A range of options were considered by the partners, and the options that the partners will seek feedback on are:

1. Farm-level Levy
2. Processor-level Hybrid Levy.

This document also covers the 'Backstop' – Agriculture in the NZ ETS – to support understanding on how the Partnership options differ from the current legislated alternative.

These options perform differently against the criteria, and the Partnership has to consider the trade-offs between the options. The key advantages that the Partnership options offer, compared to simply pricing emissions through the NZ ETS, are the split-gas approach, the ability for the agricultural sector to have input into the process for setting the price and recycling revenue, and recognition of some sequestration that is not recognised through the NZ ETS.

Emissions Reductions

The Partnership has recognised that reducing on-farm emissions requires a broader approach than just putting a price on emissions.

The aim of the pricing system is to motivate and reward actions that will reduce emissions and the warming impact of the sector. Farmer change is influenced by a number of factors including awareness of the issue, knowledge, motivation, confidence, and support. The pricing system is one part of a broader framework to support this process. The pricing system seeks to raise funds to run the system, pay farmers for sequestration, support farmers to reduce emissions and recognise and reward the reductions.

He Waka Eke Noa modelling shows that by 2030, agricultural emissions of methane (CH_4) will reduce by 4.4% and nitrous oxide (N_2O) by 2.9% under existing government policies (e.g. National Policy Statement for Freshwater, and Forestry in the NZ ETS) and market and economic drivers. Modelling also indicated that if He Waka Eke Noa or NZ ETS were to apply a simple price to agricultural emissions and nothing more, little further reductions would be achieved (less than 1%). However, if the revenue generated by the pricing were to be recycled to support on-farm behaviour change, more reductions could be attained.

Emissions reduction targets:

- CH_4 emissions to reduce by 10% below 2017 levels by 2030
- N_2O and CO_2 to reduce to net zero by 2050

The targets are out of scope for He Waka Eke Noa, industry partners will be engaging with the Government on targets outside of He Waka Eke Noa.

For the Farm-level Levy, at the prices modelled, emissions pricing combined with revenue recycling is estimated to deliver additional CH_4 reductions of up to 4.3% and N_2O reductions of 1.8% between now and 2030 (over and above the baseline achieved by other environmental policies).

For the Processor-level Hybrid Levy, at the prices modelled, emissions pricing combined with revenue recycling could deliver additional CH_4 reductions of up to 3.9% and N_2O reductions of 1.7% between now and 2030.

These emissions reductions come from a combination of land-use change, practice change and technology uptake.

It is anticipated that the waste sector could achieve a reduction in total biogenic methane of at least 1.7% by 2030[1].

[1] Climate Change Commission, 2021, https://ccc-production-media.s3.ap-southeast-2.amazonaws.com/public/Evidence-21/Evidence-CH-12-Long-term-scenarios-to-meet-the-2050-target.pdf

	Farm-level Levy and revenue recycling	Existing policies	Waste sector	Total
CH_4	4.3%	4.4%	1.7%	10.4%
N_2O	1.8%	2.9%		4.7%

	Processor-level Hybrid Levy and revenue recycling	Existing policies	Waste sector	Total
CH_4	3.9%	4.4%	1.7%	10%
N_2O	1.7%	2.9%		4.6%

In conjunction with existing policies and allowing for additional biogenic methane reductions from the waste sector, if accompanied with the commercial availability of emissions mitigation tools, such as methane inhibitors and low emissions livestock genetics, the options presented by He Waka Eke Noa lead to an estimated reduction in emissions broadly aligned with current legislated targets for 2030. This could also be true of the NZ ETS backstop, if the Government decided to adopt elements of revenue recycling.

The 'Backstop' – Agriculture in the NZ ETS

The Government has legislated that agricultural emissions will enter the NZ ETS if an effective and workable alternative is not put forward by the Partnership.

The key features of the 'backstop' are:

- Emissions are calculated at the meat, milk, and fertiliser processor level, based on the quantity of product received from farms or, in the case of fertiliser, sold to farms
- Processors could decide whether to pass on the cost to farms based on the quantity of product processed or fertiliser bought
- Initially 5% of emissions from agriculture would be priced (95% of emissions would be freely allocated to processors). Free allocation is expected to reduce by one percentage point a year
- All gases would be treated the same, i.e. short- (CH_4) and long-lived (N_2O and CO_2) gases would be priced at the same rate per tonne of carbon dioxide equivalent (CO_2e)
- Currently only sequestration (carbon removals from vegetation) eligible for entry into the NZ ETS is recognised
- Government intends that any revenue raised through the backstop would be invested back into the agricultural sector to support further emissions reductions. This could include elements of revenue recycling designed through He Waka Eke Noa and paying for sequestration not eligible for the NZ ETS (e.g. riparian plantings).

Advantages:

- Low administration costs, estimated at $10 million per annum. This would be made up of $8 million in costs to processors, (which includes additional time spent reporting and auditing, passing on the cost to farmers, the purchase of New Zealand Units (NZU) and hedging costs) and $2 million for operational costs. Establishment costs are estimated to be $3 million. If the Government were to introduce revenue recycling or recognise additional sequestration this would increase the administration costs, including costs for farmers
- Any revenue raised through the NZ ETS would be invested back into the agricultural sector to generate further emissions reductions.

Disadvantages:

- A processor-level price signal is blunt, applies only to fertiliser sales and farms that sell directly to processors and does not recognise individual farms for the actions they take to reduce emissions
- Does not treat short- (CH_4) and long-lived (N_2O and CO_2) gases differently. The same rate would apply to short- and long-lived gases.

Farm-level Levy

The key features of the Farm-level Levy are:

- Emissions are calculated at farm level using farm-specific data. The farm then pays a levy for its net emissions
- A split-gas approach to levying would be applied, which means that different levy rates would apply to short- (CH_4) and long-lived (N_2O and CO_2) gases. This approach reflects that CH_4 is not required to reduce to net zero
- Rewards eligible on-farm sequestration, which can offset some of the cost of the emissions levy
- Any revenue raised through the levy would be invested back into the agricultural sector to support emissions reductions through research and development, support adoption of mitigations, or pay for/provide credit for additional emissions reductions.

Advantages:

- Enables a split-gas approach (treats short- (CH_4) and long-lived (N_2O and CO_2) gases differently)
- Calculates emissions at farm level which recognises a greater number of efficiencies and mitigations that could be taken up by farms
- Farms that have taken early action to reduce emissions will face a lower emissions cost because emission reductions from on-farm efficiencies and mitigations are recognised in the tool to calculate on-farm emissions
- Farms that have taken early action to maintain and increase sequestration will be rewarded because annual sequestration from existing vegetation will be recognised (if it meets He Waka Eke Noa requirements)
- Any revenue raised through the levy would be invested back into the agricultural sector to generate further emissions reductions and support lower emissions food production.

Disadvantages:

- Significant administration costs, currently estimated at $80 million – $96 million per annum. This would be made up of $32 million – $43 million cost to farmers in time spent reporting i.e. up to $1,200 – $1,600 in time per farm, and $48 million – $53 million for operational costs. Establishment costs are estimated to be $124 million – $149 million. Further work is underway to refine these costs.

Processor-level Hybrid Levy

The key features of the Processor-level Hybrid Levy are:

- Emissions are calculated at the meat, milk, and fertiliser processor level, based on the quantity of product received from farms or, in the case of fertiliser, sold to farms
- Processors would likely pass on the cost to farms based on the quantity of product processed, or fertiliser bought
- A split-gas approach to levying would be applied, which means that different levy rates would apply to short- (CH_4) and long-lived (N_2O and CO_2) gases. This approach reflects that CH_4 is not required to reduce to net zero
- Any revenue raised through the levy would be invested back into the agricultural sector to support emissions reductions through research and development, support adoption of mitigations, or pay for/provide credit for additional emissions reductions through Emission Management Contracts (EMC) and/or on-farm sequestration through Sequestration Management Contracts (SMC)
- Farms and collectives could choose to enter into an EMC to get a payment for reducing emissions and/or an SMC to get payment for sequestration on-farm.

Advantages:

- Enables a split-gas approach (treats short- (CH_4) and long-lived (N_2O and CO_2) gases differently)
- Administration costs are lower than Farm-level Levy, but higher than NZ ETS, currently estimated at $39 – 66 million per annum. This would be made up of $4 million cost to processors, $8 million – $19 million cost to farmers i.e. up to $600 – $1,600 in time per farm and $27 million – $43 million for operational costs. Establishment costs are estimated to be $79 million – $129 million. Further work is underway to refine these costs
- Could provide a transitional step towards a farm-level pricing system
- EMCs would reward individual farm action and make a processor-level levy more effective at reducing emissions
- Farms who have taken early action to maintain and increase sequestration can be rewarded via an SMC because this includes recognising future sequestration associated with existing vegetation (if it meets He Waka Eke Noa requirements).

Disadvantages:

- A processor-level price signal is blunt, applies only to fertiliser sales and farms that sell directly to processors and does not recognise individual farms for the actions they take to reduce emissions
- To be effective at incentivising emission reductions, some EMCs may require a benchmark that could disadvantage those who have taken early action to reduce or already have low emissions.

On-farm Sequestration

Both the Farm-level Levy and Processor-level Hybrid Levy would recognise on-farm sequestration. Recognition for on-farm sequestration will be funded through the revenue from pricing emissions. The value of sequestration would be set at a price that balances the incentives to recognise sequestration and reduce emissions while ensuring the affordability of the system. These options would:

- Recognise some vegetation types not currently eligible for the NZ ETS. It would not recognise NZ ETS eligible exotic forestry
- Recognise vegetation categories that are either permanent (indigenous/native vegetation that will not be harvested) or cyclical (vegetation that is felled and re-established, generally exotic species)
- Recognise indigenous regenerating/planted forests, riparian planting, shelter belts, perennial cropland, non-NZ ETS eligible woodlots/tree lots, and scattered exotics
- Use different methods to calculate sequestration rates depending on the vegetation type, state, and stage of development
- Place liabilities on vegetation if it is cleared (permanent categories) or cleared and not replanted (cyclical categories). This relates only to vegetation that is entered into the He Waka Eke Noa system. There are also provisions for when vegetation is removed as a result of adverse events and customary harvest
- Provide a pathway for other forms of sequestration (e.g. soil carbon, tussock grasslands) to be on-boarded when there is sufficient evidence and measurement techniques.

How to provide feedback

We want to know what is important to you in an emissions pricing system, what you like and dislike about these options, and your preference.

There will be an opportunity to provide feedback through an online form by 1 March 2022 or through attending an industry event in February 2022.

What's next?

The He Waka Eke Noa partners are planning broad nationwide engagement with their farmers and growers in February 2022. Feedback from engagement will form part of the final policy recommendations to the Minister of Climate Change and the Minister of Agriculture in April 2022.

The Government will consider He Waka Eke Noa recommendations and make final decisions on an agricultural emissions pricing system. This will involve consideration of a range of factors such as implications of meeting New Zealand's climate change targets, and engagement with wider stakeholders outside the agricultural sector.