

# He Waka Eke Noa

**Primary Sector Climate Action Partnership** 

September 2022

## He Waka Eke Noa Partnership

























Ministry for Primary Industries Manatū Ahu Matua

Supported by:

AgResearch, Scion, Manaaki Whenua, Fert Association, NZAGRC, PGGRC

## **Mission**

By 2025 the partnership will **implement a framework** that will:

- reduce agricultural GHG emissions
- build agricultural resilience to climate change.

This will empower farmers and growers to:

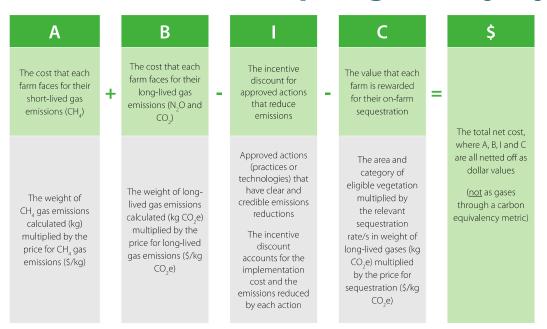
- measure, manage and reduce on-farm emissions
- recognise, maintain or increase integrated sequestration on farms
- adapt to a changing climate.

## This **enables**:

- sustainable food and fibre production for future generations
- competitiveness in international markets.

# **Key Recommendation**

## Establish a farm-level split-gas levy by 2025.



Different levy rates for short-lived and long-lived gas emissions.

## What He Waka Eke Noa is recommending

How you would measure, manage and reduce on-farm emissions under a farm-level split-gas levy

NOW

#### FROM 2025: IF RECOMMENDATIONS ARE ACCEPTED

**ONGOING** 

### Know your numbers, have a plan



Use a greenhouse gas calculator to understand your farm's agricultural emissions.



Identify opportunities and actions relevant to your farm to manage and reduce emissions.

#### Register in the system

#### Who needs to register?

If you're GST registered and annually average over any of the following, you have to register:

- 550 stock units (sheep, cattle. deer and goats)
- 50 dairy cattle
- 700 swine\*
- 50,000 poultry\*
- 40 tonnes of synthetic nitrogen fertiliser use

\*subject to further work

#### Who is responsible?

Business owners (with approval from landowners for sequestration, if required).

#### You can register as:



Individual farm



Supported individual farm (reporting delegated e.g. to accountant or processor)



Collective of farms

### Calculate your emissions



Enter your farm data to calculate your emissions via the central standardised emissions calculator.



Get your farm's emissions numbers for methane (in kgs) and longlived gases (in kgs of CO,e).

The lower your emissions numbers, the lower your levy cost.

> Inputs into setting levy rates

## emissions and levy costs

You'll get recognition for:

#### Incentivised actions

such as using eligible technologies and practices that deliver measurable emissions reductions (e.g. low methane sheep genetics and urease inhibitors)

#### Maintained and increased sequestration

such as areas of eligible vegetation, including existing or new natives, riparian plantings, and some exotics (e.g. shelter belts)



The more incentivised actions and sequestration on your farm, the lower your levy cost.

eligible incentives

## Further reduce your See the levy at work Our climate change



Your levy will be invested into agricultural sector emissions research and technology development.

Remaining funds will cover system costs.

There will be a separate fund to support the specific needs of Māori landowners.

## commitment



Lowering emissions will decrease your levy and show our sector is committed to playing our part in addressing climate change.

Sets strategy and directs investment

Inputs on

He Waka Eke Noa Primary Sector Climate Action Partnership

# Reporting and payment

- Farms that are GST registered and annually have over:
  - 550 stock units or
  - 50 dairy cattle; or
  - Apply over 40 tonnes of nitrogen through synthetic fertiliser.
- Business owners responsible for reporting emissions and paying the levy.
- Eligible sequestration included with landowner permission.
- Any farm business can form a collective to work together to report and pay for emissions.

## Incentive discounts

- Incentive discount, netted off against the levy cost, for approved actions (eligible practices and technologies) that deliver measurable emissions reductions.
- Discount received relates to the cost of implementing the action and the emissions reductions achieved.
- Levy relief on a case-by-case basis (strict criteria to 2030).
- Incentive approach monitored regularly and reviewed for effectiveness (from 2028).

# Sequestration

Farms rewarded for existing and new eligible vegetation that encourages 'the right tree in the right place'. Categories rewarded are:

- Permanent (regenerating/planted indigenous, riparian)
  - **Pre 2008** receives additional sequestration from management (minimum of stock exclusion)
  - Post 2008 (or 1990 to 2008 with evidence) receives total carbon stocks
- Cyclical vegetation (shelter belts, small woodlots, perennial cropland) excl. NZ ETS eligible cyclical.
  - Post 2008 (or 1990 and 2008 with evidence) receives average carbon stocks

# Levy revenue reinvestment

- Levy revenue invested back into the primary sector for research and development.
- Revenue investment strategy set by System Oversight Board against agreed principles.
- Revenue will also need to contribute to the administration costs of the system.
- Dedicated fund to support the needs of Māori landowners
  - governed by an Independent Māori Board.
  - fund reflects levies paid by Māori agribusiness.

## Admin costs

- Establishment costs \$114 million to \$144 million
- This includes development cost of system and first two years of operations.
- Operating costs for Transitional Farm-level Levy -\$32 million to \$36 million to administrator, \$19 million to farmers
- Operating costs for Farm-level Levy \$43 million to \$47 million to administrator, \$27 million to \$37 million to farmers
- The administrator costs include amortisation of the establishment costs; registration, audit and compliance costs; and the farmer costs are the time spent collating data and reporting.

# Impacts and Insights

Table 1: Estimated gross emissions reductions achieved through existing policies, waste and farm-level levy by 2030

	Farm-level levy	Existing policies	Waste sector	Total
CH <sub>4</sub>	4 – 5.5%	4.4%	1.7%	10.1 – 11.6%
N <sub>2</sub> O	2.9 – 3.2%	2.9%		5.8 – 6.1%

Table 2: Emission reductions and impact on average farm profit and production by 2030

Technology Assumptions		Price of lived gases				Modelled emission reductions excluding baseline reductions (% reduction from 2017)		Impacts on average farm profit (% reduction from 2017)		Impacts on production (% reduction from 2017)	
Tec	Assu	(B)	carbon price)	CH₄	N <sub>2</sub> O	Dairy	Sheep + Beef	Hort/Arable	Dairy (milk)	Sheep + Beef (meat)	
Medium	lech	\$0.35/kg	\$13.80/ tonne CO <sub>2</sub> e	\$104/tonne CO <sub>2</sub> e	-4.0	-2.9	-5.6	-7.2	0 to -0.5	-1.4	-0.1
High Tech		\$0.17/kg	\$13.80/ tonne CO <sub>2</sub> e	\$104/tonne CO <sub>2</sub> e	-5.5	-3.2	-3.0	-1.2	0 to -0.5	-0.7	0.0

# Horticulture Impacts and Insights

Farm Type	Key farm information (kgMS, total stock units, kgN/ha)	2025 (\$85/tonne CO <sub>2</sub> e, 95% discount) *		2030 (\$138/tonne CO <sub>2</sub> e, 90% discount)	
		Price	% change in EFS	Price	% change in EFS
Pipfruit***	43 (kgN/ha)	\$30	0%	\$100	0%
Kiwifruit***	115 (kgN/ha)	\$100	0%	\$329	-0.01%
Vegetables (Pukekohe and Canterbury)***	125 - 183 (kgN/ha)	\$300 to \$440	-0.03 to -0.05%	\$974 to \$1,426	-0.1 to -0.16%

# Cost to Vegetable Growers of Agricultural Emissions

- 1 Kg of Non-Urea Fertiliser = 5.4 kg of CO2e
- The ETS price is currently \$75 T
   CO2 e
- Modelling, \$85 T CO2e in 2025, and \$138 T CO2e in by 2030
- Example: 200 Ha vegetable apply 200kgN/ha = 40 Tonne



\$85 CO2e	95% FA	\$138 CO2 e	90% FA
\$92/Ha/yr (\$18,360)	\$4.6/Ha (\$918)	\$149/Ha/Yr (\$29,808)	\$15/HA /Yr (\$2980)

# Cost to Fruit Growers of Agricultural Emissions

- 1 Kg of Non-Urea Fertiliser = 5.4 kg of CO2e
- The ETS price is currently \$75 T CO2 e
- Modelling, \$85 T CO2e in 2025, and \$138 T CO2e in by 2030
- Example: 20 Ha apples apply 50kgN/ha = 1 Tonne



\$85 CO2e	95% FA	\$138 CO2 e	90% FA
\$23/Ha/yr (\$460)	\$1/Ha (\$23)	\$37/Ha/Yr (\$745)	\$4/HA /Yr (\$75)

## Milestones

## **Farm Planning**

- Guidance for GHG by January 2021
- 25% of farms with GHG in farm plans by January 2022
- 100% of farms with GHG in farm plans by January 2025

## **Emissions Reporting**

- 25% of farms know their GHG numbers by December 2021.
- 100% of farms know their GHG numbers by December 2022.
- Farm level accounting and emissions reporting system in place by 2025

# Reporting on He Waka Eke Noa Milestoness

	Hort Farms (Agreed HWEN definition). Source: GAP data	Plan. (Subject to	Know their Number using He Waka Eke Noa Approved Tool. Verified through Interview.	Average Co2e T/Ha
TOTAL	188	127	112	1
Percentage		68%	60%	

# Feedback / Questions



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