



He Waka Eke Noa

Primary Sector Climate Action Partnership

September 2022

He Waka Eke Noa Partnership



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:

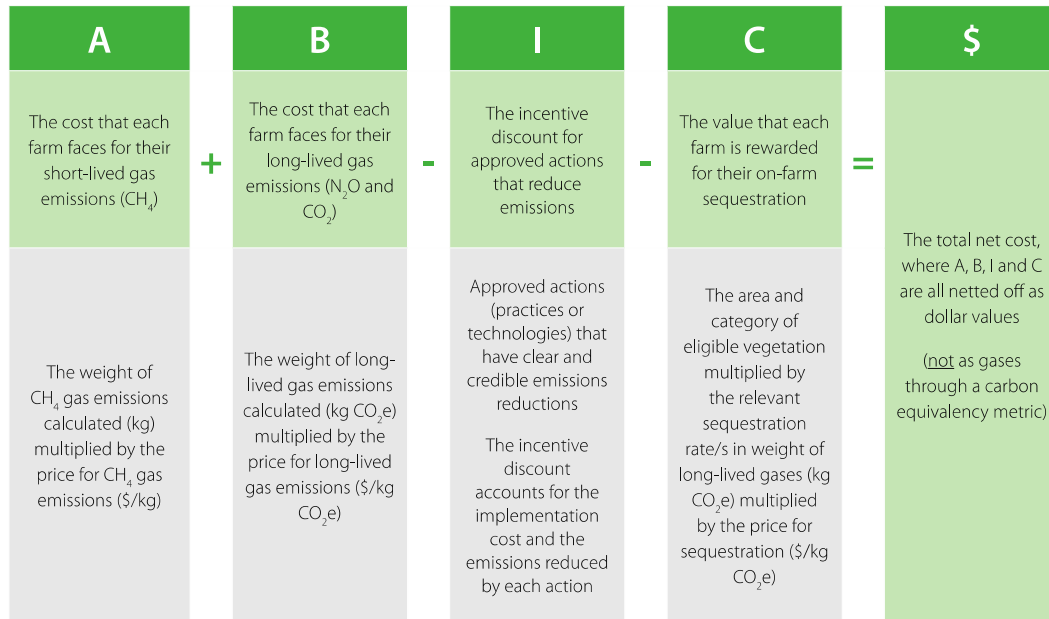
- measure, manage and reduce on-farm emissions
- recognise, maintain or increase integrated sequestration on farms
- adapt to a changing climate.

This **enables**:

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

Key Recommendation

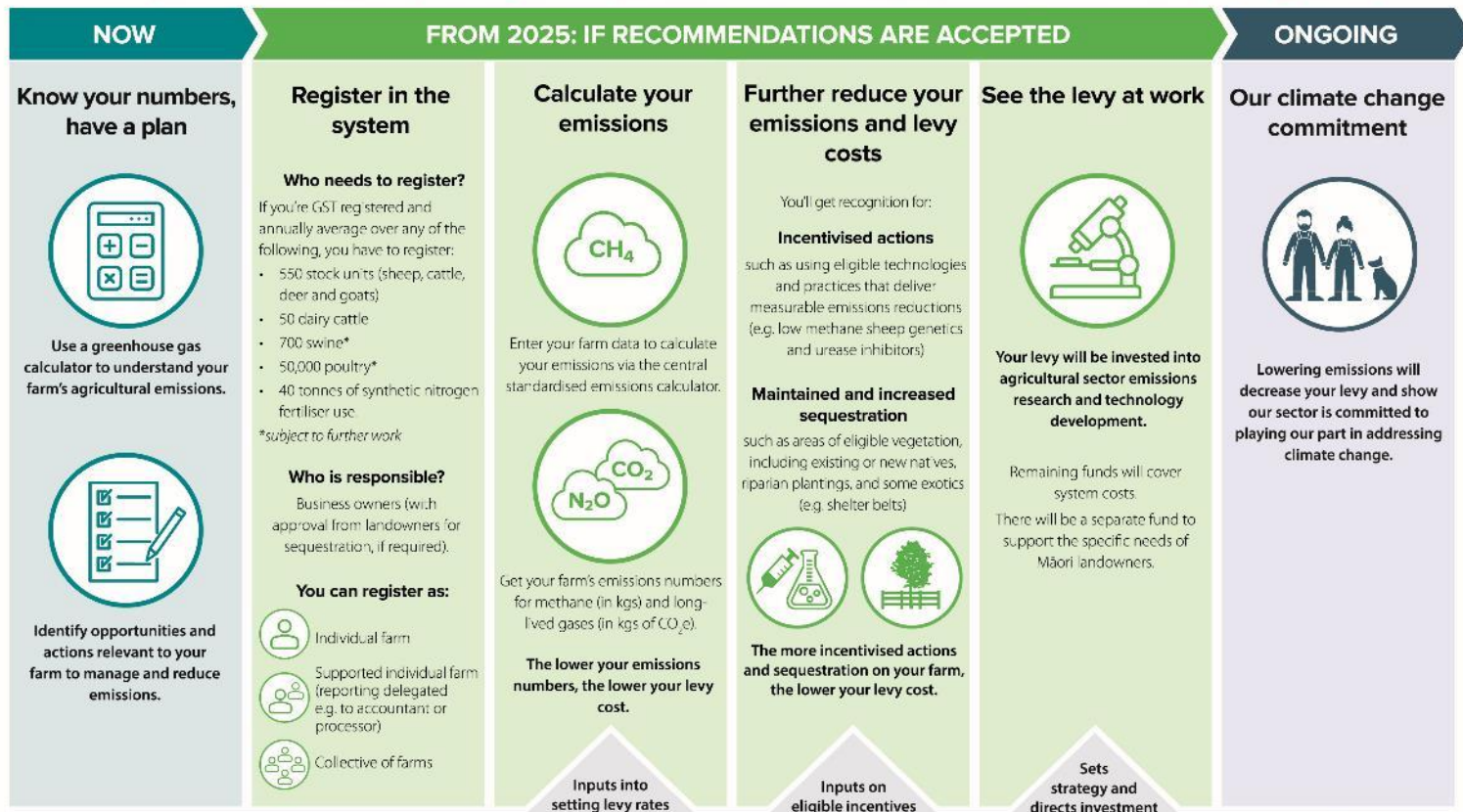
Establish a farm-level split-gas levy by 2025.



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



A PARTNERSHIP APPROACH

A System Oversight Board, with primary sector and Māori agribusiness representatives

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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 ₄	4 – 5.5%	4.4%	1.7%	10.1 – 11.6%
N ₂ 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 methane (A)	Price of long-lived gases (B)	Price of sequestration (C) (75% of NZ ETS carbon price)	Modelled emission reductions excluding baseline reductions (% reduction from 2017)		Impacts on average farm profit (% reduction from 2017)			Impacts on production (% reduction from 2017)	
				CH ₄	N ₂ O	Dairy	Sheep + Beef	Hort/Arable	Dairy (milk)	Sheep + Beef (meat)
Medium Tech	\$0.35/kg	\$13.80/tonne CO ₂ e	\$104/tonne CO ₂ 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 ₂ e	\$104/tonne CO ₂ 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 ₂ e, 95% discount) *		2030 (\$138/tonne CO ₂ 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 CO₂e
- Modelling, \$85 T CO₂e in 2025, and \$138 T CO₂e in by 2030
- Example: 200 Ha vegetable apply 200kgN/ha = 40 Tonne



\$85 CO ₂ e	95% FA	\$138 CO ₂ 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 CO₂e
- Modelling, \$85 T CO₂e in 2025, and \$138 T CO₂e in by 2030
- Example: 20 Ha apples apply 50kgN/ha = 1 Tonne



\$85 CO ₂ e	95% FA	\$138 CO ₂ 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 Milestones

	Hort Farms (Agreed HWEN definition). Source: GAP data	He Waka Eke Noa Approved Farm Plan. (Subject to Agreed Action Plan). Verified by Audit	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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