

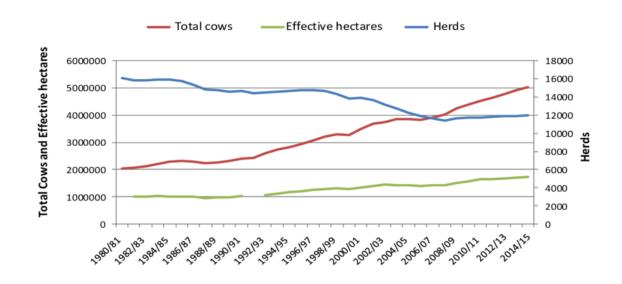
28 July 2023

Farming under the spotlight – lessons from NZ

Blake Holgate

Rabobank NZ

A short history of NZ's environmental regulatory history



NEW ZEALAND / ENVIRONMENT

Water pollution now public's top concern

6:37 pm on 2 January 2019











A new poll has found freshwater pollution is now worrying New Zealanders more than any other topic.







Progressively tighter regulation's through 2010's

2011

Freshwater Management 2011

Augustus and August Statement

Supple See deed 1 August Statement govt.nz

2014

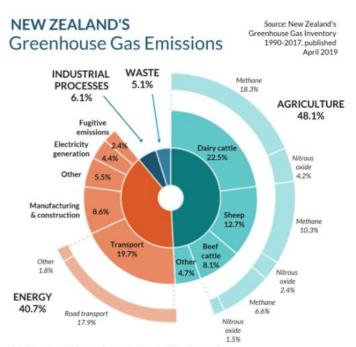


2020





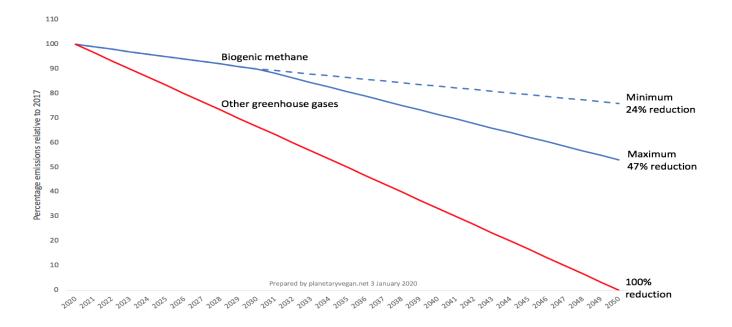
Focus shifts to GHG emissions post Paris Agreement



Note: Percentages in the graph may not add up to 100 due to rounding.

Fugitive emissions are from the leakage, burning and controlled release of gases in oil and gas operations as well as escaping gases from coal mining and geothermal operations. Agricultural methane is mainly from livestock digestive systems and nitrous oxide is mainly from manure on soil.

Ministry for the Environment, CC BY-ND

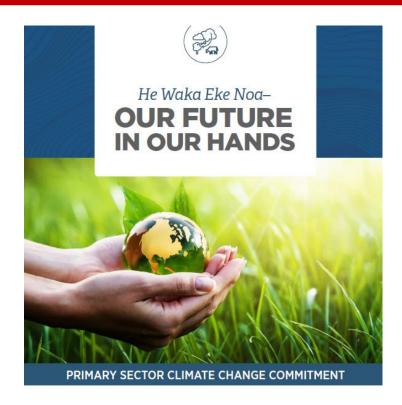




Collaboration between industry & government

"He Waka Eke Noa" – Our Future in Our Hands

"The primary sector will work in good faith with government and iwi/Maori to design a practical and cost-effective system for reducing emissions at farm level by 2025"





























Key milestones/issues to resolve by 2025

Milestones

Late 2020/21

Information on how to measure and manage GHG emissions

2022

- 100% Farmers know individual emissions profile
- Government reviews progress

2024

Emissions reporting & benchmarking system completed

2025

- Reporting and paying for individual emissions
- Environmental plan to deal with emissions

Key issues to be decided

- How emissions measured/modelled (including incorporating new technologies)
- Offsets
- Extension programme
- Pricing mechanism



Price on (methane + long-lived gas) – (sequestration + removal activities)

Farm-level, split-gas levy

Ongoing

Review and

improve the

be built into the

system over time to

improve effectiveness.

practicality and equity

system Improvements will

Register in the system

Who reports and pays GST-registered business owners:

- with more than 550 stock units (deer, sheep, cattle) or 50 dairy cattle or
- who apply 40t synthetic nitrogen fertiliser (if not in NZ ETS at processor level)

Registration options

- · register yourself
- delegate registration methane (in to someone else
- ▶ register as a collective (when enabled)



Report and calculate your emissions

Enter your farm data via an emissions calculator:

- farm area
- stock reconciliation
- livestock production data
- total synthetic nitrogen fertiliser use

Emissions data You will get

your farm's emissions numbers for kgs) and long-lived gases (in kgs of CO2-e)

Levy calculation

Base payment = (kg of methane emissions x methane levy rate) + (kg of long-lived gas emissions x long-lived gas levy rate). The lower your emissions numbers, the lower your levy cost

Reduce your emissions and levy

Incentive payments

Use approved mitigation technologies that deliver measurable emissions reductions and receive a payment to reduce your levy cost

Approved on-farm vegetation could be recognised through a payment for riparian margins and management of indigenous vegetation to reduce levy costs

Reduced levy payment Total emissions cost less credit for all approved actions



See the levy at work

Revenue recycling strategy

Developed with Māori/ sector advisory body/ bodies

Use of funds

- system administration
- research and development



New vegetation categories added to the NZ ETS

dedicated Māori fund



Levy rates

Long-lived gas levy rate

- · linked to the price of New Zealand Units in the NZ ETS
- proportional discount phased out over time
- · updated periodically

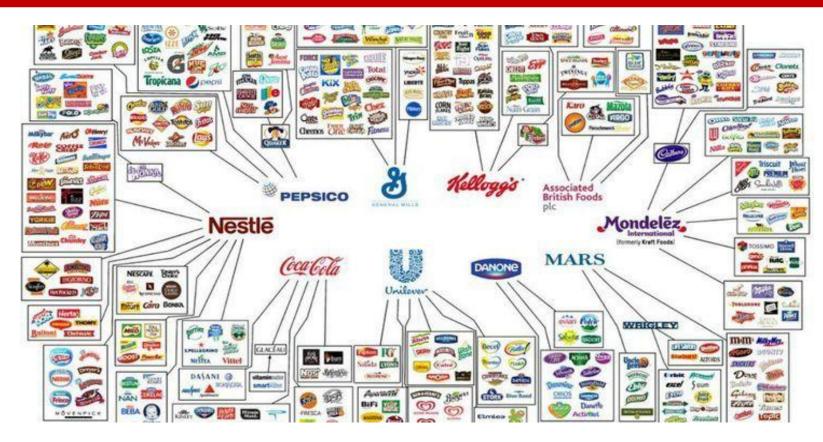
Methane levy rate

- unique rate
- updated periodically based on trajectory to meet legislated methane targets
- ➤ Climate Change Commission to advise Ministers

Farm Type	Key farm infor- mation (kgMS, total stock units, kgN/ha) ²⁰	Prices: A=\$0.17/kg; B=\$13.80/t; C=\$104/t (75% of NZ ETS carbon price) ³¹				
		Levy cost (A+B)	Action-based Incentive	Sequestration reward	Total levy cost less incentive discount and sequestration reward	EFS % Impact
North Island hill country	4,841 (su)	\$14,045	\$3,363	\$4,782	\$5,900	-2.9%
North Island intensive	2,745 (su)	\$9,814	\$2,347	\$3,150	\$4,317	-3.0%
South Island hill country	9,751 (su)	\$21,914	\$5,250	\$6,365	\$10,299	-5.5%
South Island deer	7,037 (su)	\$21,395	\$5,120	\$6,365	\$9,910	-4.3%
South Island mixed cropping	2,850 (su), 215 (kgN/ha)	\$7,864	\$2,158	\$1,224	\$4,482	-1.4%
Māori agribusiness sheep and beef range ³²	3,733 – 7,843 (su)	\$24,993 to \$43,685	\$5,994 to \$10,612	\$10,228 to \$75,970	-\$42,897 to \$8,771	-2.6% to 5.9%
Canterbury dairy	349,135 (kgMS)	\$26,414	\$13,815	\$1,406	\$11,193	-1.1%
Taranaki dairy	118,296 (kgMS)	\$9,985	\$5,162	\$1,130	\$3,693	-1.1%



But its not all about what is happening within our shores...

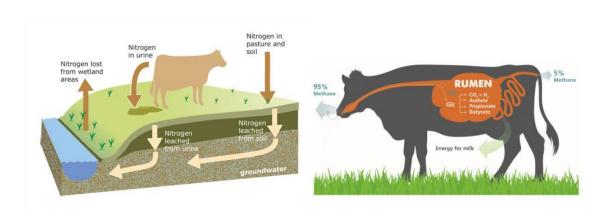


What do the world's top 10 food companies want? (\$US1.185 Trillion of market cap).



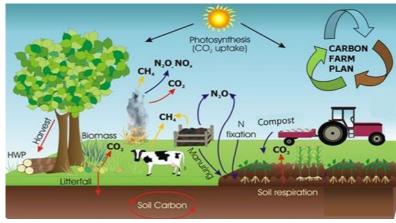
Details uncertain, but direction of travel clear – increasingly land-owners required to account for (& be rewarded for) greater range of environmental impacts

Negative effects





Positive effects







Environment – new driver of land-use/systems & innovation

Land-use/farm system change





Environmentally efficient innovation



SPOTLIGHT



DSM announces collaboration on developing methane inhibitor for New Zealand cows





Creating both risks and opportunities

CHALLENGE: Risks are here and now – benefits largely in the future





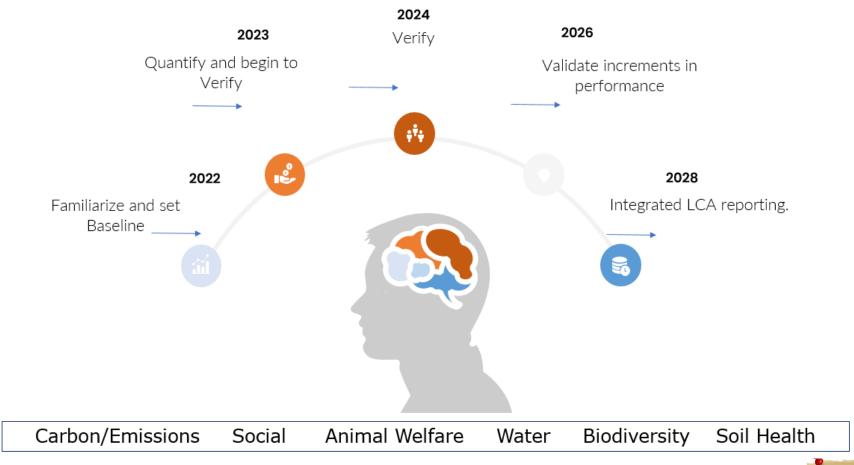
But not everyone impacted in the same way...

Defined by regulatory framework combined with individual farming circumstances





Its not just what is happening on the land that is changing – Non-financial reporting future for farmers





Top three take home messages

1. Set/define the narrative, don't be defined/responding to it

2. Separate the noise from your reality – understand your own farm-specific risks/opportunities (and focus on what can control)

3. Think strategically, not just tactically, about sustainability





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