

# Cross-Sector Forum



*14 March 2019*

**Interim  
Climate  
Change  
Committee**

# How surrender obligations could best be arranged if agricultural methane and nitrous oxide emissions enter into the NZ ETS

*Harry Clark and Suzi Kerr*

The logo for the Interim Climate Change Committee is a circular emblem with a white border. Inside the circle, the words "Interim Climate Change Committee" are written in a sans-serif font, with "Interim" and "Committee" in white and "Climate Change" in blue.

Interim  
Climate  
Change  
Committee



# What we have considered

- Driving change:  
***NZ ETS & other pricing policies, regulatory limits & mandated Good Management Practice***
- Supporting change:  
***Farm plans, GHG calculation methods, extension & training, dedicated Agricultural Emissions Fund, support for rural professionals***

- ***The signal from any policy for driving change should be felt at the farm level***



# Livestock emissions – comparing options

Four options to illustrate a spectrum of choices to drive livestock emissions reductions at farm level:

**Option 1** Mandatory GHG Good Management Practices + Farm Plans

**Option 2** GHG emissions limit + Farm Plans

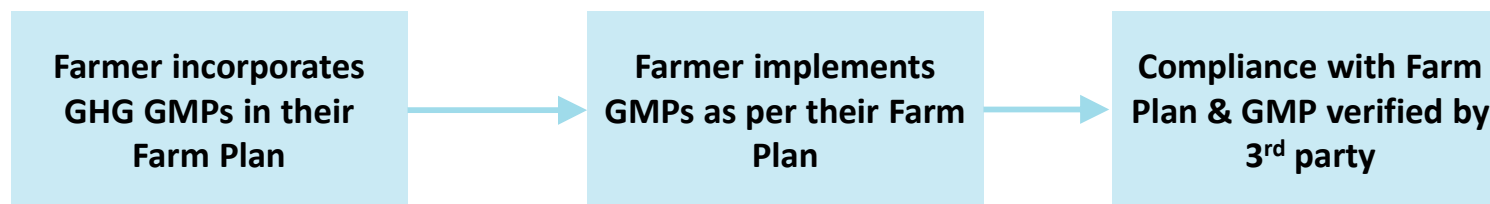
**Option 3** ETS at farm level + Farm Plans

**Option 4** GHG emissions levy + Farm Plans



# Mandatory good management practices

- Every farmer has a Farm Plan based on sector-agreed Good Management Practices for greenhouse gas management

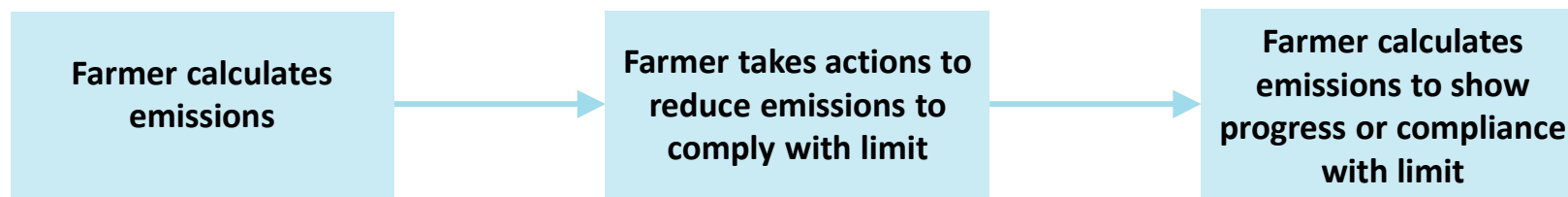


- Familiar approach but Good Management Practice for GHGs still to be developed & emissions reductions not guaranteed



# GHG emissions limit (using farm plans)

- Every farmer must comply with a GHG limit applied to their farm
- There are a number of ways limits could be set
  - e.g. a limit on emissions per hectare or % reduction from farm benchmark

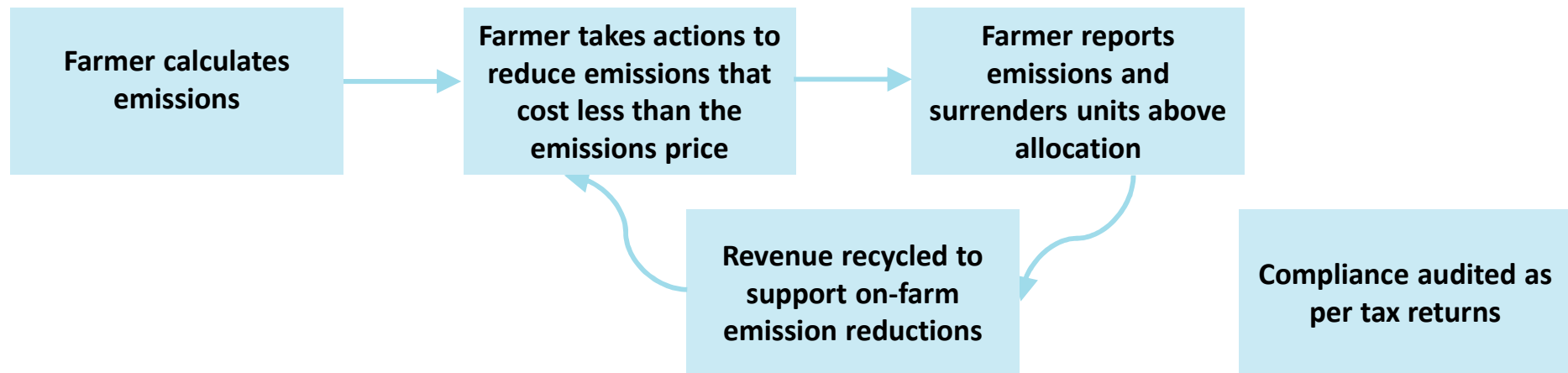


- Clear target to aim for but doesn't reduce emissions at least cost & doesn't reward emission reduction below limit



## ETS at farm level (using farm plans)

- Every farm's emissions are subject to the ETS price. Revenue recycled.
- The lower the farm's emissions, the lower the emissions cost (fewer units due)



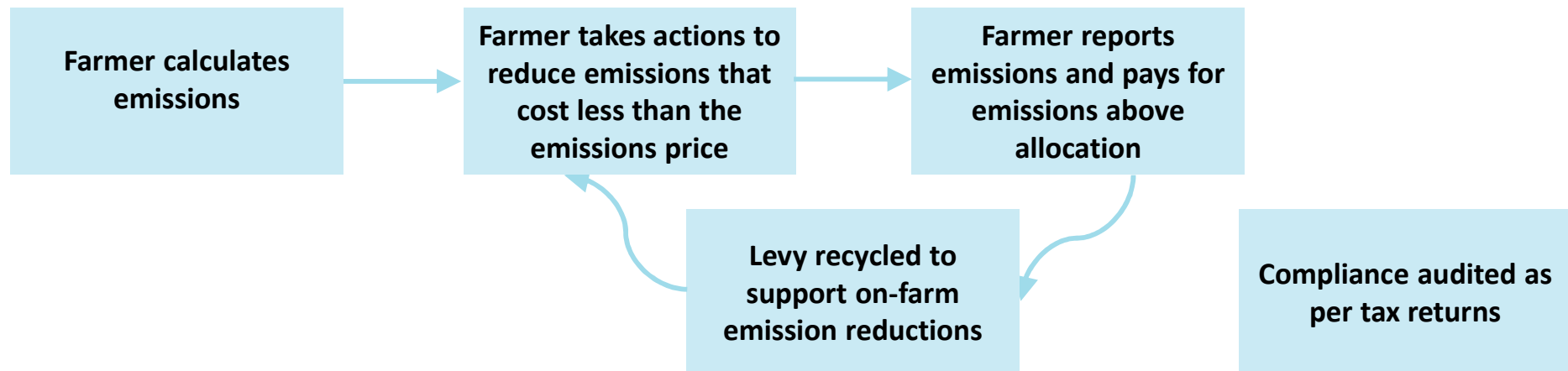
- Cost-effective - farmers reduce as far as it makes financial sense to do so, but high transaction costs to farmers from having to trade units





# GHG emissions levy (using farm plans)

- Every farm's emissions are subject to the levy price. Levy revenue recycled.
- The lower the farm's emissions, the lower the levy amount due.



- Cost effective - farmers reduce as far as it makes financial sense to do so; lower transaction costs than ETS but negative perceptions of a tax

- ***Farm level livestock GHG emissions levy (using farm plans)***
- ***Fertiliser manufacturers and importers covered by NZ ETS***



# Supporting change

- Calculating livestock emissions
- Dedicated Agriculture Emissions Fund
  - similar to the Waste Minimisation Fund or the National Land Transport Fund
- Farm Plans – GHG module & development of GMPs
- Extension & training
- Research & development



# How do we allocate the 95%?

Around \$1 billion each year

No 'right' answer – competing objectives

Two key methods: land-based and output-based  
– each achieves a different balance among objectives



# Objectives – sometimes competing

Reduce global emissions

Reduce New Zealand emissions and the cost to New Zealanders

Avoid severe social impacts from rapid land-use change to forestry

Help farmers service existing debt

Reward farmers with low emissions already

Avoid large 'stranded assets' – on-farm and for processors



## Land-based: relative strengths

Full incentives to reduce emissions intensity, change land use and de-intensify

- Reduces NZ emissions most – but some (low?) risk of emissions leakage
- Reduces the cost of Paris compliance to New Zealanders the most
- Rewards low intensity (GHG per ha) farmers including many Maori
- Reduces the risk of future stranded assets most

Could involve use of a map of potential grass growth



# Output-based: relative strengths

Focuses on incentive to reduce emission intensity

- Even less risk of emission leakage
- Slows land-use transition (and de-intensification)
- Rewards low emission intensity (GHG per product) farmers
- Reduces stranded processor assets most



# A mixture of land and output?

Some protection against (low?) risk of leakage

Avoid incentivising increased output of high emissions products

Incentive to start land-use transition – but slowly

Some reward for low-intensity farmers including many Maori





# A levy will take time to implement

**2019:** Amendments to the Climate Change Response Act 2002

**2020-21:** Policy work (regulations and tools for calculating emissions, free allocation)

**2021-22:** Registration and mandatory reporting by farmers

**2023:** Earliest farm level levy could be implemented ... if simple calculation method

**2025:** Farm level levy implemented with more complex methods and support systems

---

*Questions for clarification?*

---



# Objectives for a transitional measure

1. To create an enduring policy framework
2. To ensure the tools are in place for a farm level levy
3. To provide certainty that a farm level levy will come
4. To share part of the mitigation cost burden for the 2030 target

There are trade-offs – no perfect solution



# Interim option – voluntary approach

## Pros

- Focuses on outcomes, i.e. steps necessary to make a farm level levy effective
- More acceptable to agricultural stakeholders
- Fits with related sector strategies and goals to improve environmental outcomes/accountability
- No risk of lock-in to a processor-level policy

## Cons

- Agriculture sector does not reliably share burden of economy-wide 2030 target
- Limited impetus for the sector to develop solutions for farm level policy
- No obvious capacity and mechanism across sector to fund the activities that are needed
- Risk of lock-in to no policy / policy delay



# Interim option – processor level ETS

## Pros

- Can start in 2020 - ensures the agriculture sector starts to play a part before 2025
- Weak price signal ensures gradual start
- Signals to farmers that emissions have a cost and will be priced in the short and long term
- Provides impetus for the sector to develop solutions for farm level policy
- Generates reliable funds to make a farm level levy effective

## Cons

- Risk of policy lock-in at processor level
- Could be confusing, given that farm level policy is ultimate aim
- Does not differentiate or reward early adopters
- Achieves very limited mitigation outcome within agriculture sector – depends on use of fund

---

*Questions for clarification?*

---

---

*Almost 50% of New Zealand's emissions come from the agriculture sector. We have talked about a farm level price around 2025 via an on-farm levy with an option to introduce a processor ETS/levy in the near term. Are there smarter ways of achieving emissions reductions in the agriculture sector in the near term?*

*Are there other opportunities or issues that should be considered by the Committee when answering the questions it has been asked to address?*

---

# Cross-Sector Forum



*14 March 2019*

**Interim  
Climate  
Change  
Committee**