

AM19-0356

Ministry for Primary Industries  
Manatū Ahu Matua



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**Aide-memoire:**

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**To:** Hon Damien O'Connor  
Minister of Agriculture

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**Farm level Emissions Trading Scheme participation**

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**Key Messages**

- The purpose of this aide memoire is to respond to your request for advice on whether it would be possible to bring the agricultural sector into the New Zealand Emissions Trading Scheme (ETS) at farm level in the next 2 years, instead of initially pricing agricultural sector emissions at processor-level with an intention to move to a farm level option in future. This aide memoire should be read in conjunction with MPI's other advice.
- The Interim Climate Change Committee (ICCC) considers that successful implementation of a credible and effective farm-level scheme for livestock emissions will take about five years. There are numerous unresolved issues associated with bringing the agricultural sector into a pricing mechanism at farm level.
- The ICCC report left the key farm level issues unresolved and recommended further work be undertaken, including
  - Who should be the participant<sup>1</sup> at the farm level? e.g. the stock owner, landowner or farm business.

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<sup>1</sup> The participant is the legal entity who actually needs to report data and directly face the price. Generally, the best place for the point of obligation is on entities who can influence emissions reductions, where emissions can be monitored with reasonable accuracy and where compliance can be enforced at reasonable cost.

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- What the minimum threshold for participation should be?<sup>2</sup> e.g. minimum number of stock owned, minimum area of land, or minimum size of farm business.
  - What should the methodologies for emissions calculations be? e.g. emissions factors per head of stock or intensive farm-level modelling.
  - Who should receive the free allocation at the farm level? e.g. the stock owner, landowner or farm business.
  - What should the methodology for allocating the free allocation be? e.g. grandparenting, proportional, output-based, land-based, or a hybrid of output-based and land-based.
  - How would the regulator verify the accuracy of on-farm emissions calculations and allocation entitlements?
- The ICCC report suggests that operating a processor-level point of obligation will cost around \$3 million per annum compared to a minimum of \$15 million<sup>3</sup> to run at farm level.
  - However the \$15m cost assumes less sophisticated farm level options that would not likely provide any better incentive for on farm behaviour change while costing substantially more to establish and administer than a processor point of obligation.
  - MPI has undertaken some initial estimates of what it might cost to implement and administer a farm level option that could have the potential to incentivise individual farmers to change their behaviour to reduce emissions. The cost to administer the option was \$80-\$120m per annum. Key drivers of this cost were the number of participants, the level of complexity of the allocation methodology and the level of non-compliance.
  - Even the simplest option would take more than 2 years to implement.

### Key challenges with farm level participation

1. Some of the key challenges with farm level participation include:
  - *Participant at the farm level* – Each of the farm level participation options (stock owner, landowner, or farm business) comes with its own set of challenges.
    - *Stock owner* – Frequency of stock ownership changes and difficulty establishing who owns the stock (except when they are sent to processors).<sup>4</sup>

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<sup>2</sup> And the associated issue of how to avoid farmers splitting up their operations to fall below participation thresholds.

<sup>3</sup> The Environmental Protection Authority estimates the cost at closer to \$20m per annum assuming simple rules and high levels of compliance.

<sup>4</sup> Compliance is difficult to ensure without an accurate register of all animals. M Bovis operations have found the quality of some stock ownership information to be variable. Many graziers simply have verbal understandings with farmers about what will happen. Some have novel agreements e.g. I'll let you graze

## Security Level – In-confidence

- *Landowner* – May not hold all the information about how the farm is being managed land and stock numbers if the land is being farmed by other parties. Would require renegotiation of share milking agreements and grazing contracts.
- *Farm business* – Difficult for the regulator to determine location and extent of farming operation to verify compliance.
- *Methodology for calculating emissions* - In order to capture all on-farm mitigation activities the methodology for calculating emissions needs to be relatively complex. However, added complexity results in higher compliance costs for farmers, higher rates of non-compliance (due to more mistakes in how to apply the methodology), and greater difficulties for regulator to be able to easily verify on-farm activities.
- *Allocation methodology and recipient* – No method can address every issue of concern to farmers, to iwi/Māori, to the wider agricultural sector and to rural communities. Every method for free allocation has pros and cons. The ICCC preferred the most complex allocation methodology that they considered – a hybrid between output and land-based allocation. This option would likely only work if allocated to landowners as property ownership data could be used to semi-automate the verification of the allocation applications. But this may mean that the allocation recipient and the farm-level participant may be different entities.

### Simplest Farm level option

2. One farm level option would be for all farmers who supply a processor with milk or animals to be required to participate in the ETS. Under this option any farmer that supplies an agricultural sector processor would be required to:
  - a. open a holding account,
  - b. calculate their own emissions (minus any proportionate reduction via free allocation), and
  - c. acquire and surrender New Zealand Units
  - d. . The methodology for calculating emissions obligations would be based on easily verifiable numbers multiplied by emissions factors. For example,
    - i. the quantity of milk solids an individual farmer supplies to a dairy company multiplied by an emissions factor;
    - ii. the quantity of stock (per head sheep and per head beef) sent to processors multiplied by the appropriate emissions factors.
3. Fertiliser manufacturers and importers would be participants in the ETS as per the ICCC recommendation.

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your animals on my pasture/crop but you will give me some of them in return. This creates challenges when attempting to verify stock numbers.

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4. This option results in no better incentive for on farm behaviour change than if the signal is at the processor level while costing substantially (5 to 7 times<sup>5</sup>) more to establish and administer than a processor point of obligation.
5. Under this option it is also less likely, compared to a processor level, that participants would apply for a lower 'unique emissions factor' that recognises that they emit less than the average, as the costs for an individual farmer to go through this process would likely outweigh the benefits.
6. A farm level point of obligation means a large number of participants calculating their emissions. The dispersed nature of farming makes the audit and verification of this data very difficult. Therefore a farm level point of obligation relies on acceptance and compliance by farmers.

### Next Steps

7. We look forward to discussing this with you on Monday.

### Minister / Minister's Office

Seen / Referred

/ / 2019

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<sup>5</sup> \$3 million per annum to administer at a processor level compared to a minimum of \$15-20 million per annum simple farm level option.