



16 January 2020

To the Environment Select Committee

Submission on the Climate Change Response (Emissions Trading Reform) Amendment Bill – SOP 413

Submission in relation to interim action on agricultural emissions prescribed in SOP 413

- 1 The Environmental Defence Society (**EDS**)¹ welcomes the opportunity to respond to some of the amendments proposed under the Climate Change Response (Emissions Trading Reform) Amendment Bill (**CCR(ETS)AB**); specifically those set out in Supplementary Order Paper 413. The focus of our submission is on the provisions that seek to give effect to aspects of the Primary Sector's Climate Change Commitment (**Commitment** or **He Waka Eke Noa**), which outlines the interim action the sector has committed to take over the next five years.
- 2 EDS is concerned that, while other sectors are subject to surrender obligations and thus required to reduce their emissions profiles, neither the Commitment nor draft provisions require the agricultural sector – our largest emitter – to actively reduce biogenic emissions in the short term. The commitments proposed under the new Schedule 5 are limited to farm reporting and plans, not actual emission reductions, and thus lack the ambition necessary to meet our international and domestic reduction targets. The commitments also fail to preserve the integrity of the sector's reputation here and abroad and delay discernible behaviour change. There also appears to be limited detail in SOP 413 in relation to the governance arrangements of the proposed steering group responsible for approving the methods and definitions for documenting annual on-farm emissions. We address these concerns further below.
 - A Absence of reductions target in the interim period**
- 3 *He Waka Eke Noa* represents the Primary Sector's climate change commitments until an emissions pricing mechanism may apply from 2025 (**interim period**)

¹ EDS is a not-for-profit, non-government national environmental organisation. It was established in 1971 with the objective of bringing together the disciplines of law, science and planning in order to promote better environmental outcomes in resource management.

and, notwithstanding numerous policy concerns on the part of both the Ministry for the Environment and Minister for Climate Change (partially summarised in Appendices 1 and 2 below), appears to have been accepted as the basis for an industry-Government joint action plan on agricultural emissions during the interim period. To this end, clause 205A of SOP 413 seeks to insert a new Schedule to the Climate Change Response Act 2002 that incorporates a modified set of milestones distilled from Annex 1 of *He Waka Eke Noa*. Concerningly, *none* of these milestones sets an interim reduction target or commits the sector in any way to start reducing emissions immediately.

- 4 This is perhaps unsurprising: whilst *He Waka Eke Noa* asserts that it represents a commitment to reduce agricultural greenhouse gases,² it stops short of setting a sector-wide reductions target for the interim period. Rather, it talks of increasing “its urgency to deliver *actions that will support* the reduction ... of its emissions.”³ However, it is perplexing that advice from the Ministry for the Environment in May 2019 regarding the *minimum* requirements for a voluntary accord with the agricultural sector appears to have been ignored in this regard. Among them includes “a commitment from the agriculture sector to: achieve emission reductions for all agricultural emissions ... at a minimum rate of a 1% reduction in absolute emissions each year, in line with the Zero Carbon Bill targets”.⁴ This reflected concerns among officials⁵ that an early iteration of the primary sector leaders’ group proposal on climate change:
 - a) did not clearly describe or commit the sector to immediate or early reductions;
 - b) covered actions that were insufficient to encourage discernible behaviour change on-farm prior to 2025; and
 - c) failed to address how its commitments would support New Zealand in achieving its climate change targets.
- 5 Similar concerns were noted in the joint MfE/MPI briefing notes of 12 June 2019 for the Fieldays meeting on Climate Change with the Primary Sector Leaders Group, which noted: “for an Agreement [between Government and industry] to achieve similar outcomes to the alternative of a processor-level ETS in 2021, it should ensure the sector starts to deliver emission reductions *now*.”⁶ (emphasis added)
- 6 Although some (but not all) sectoral participants have announced voluntary targets, a formal sector-wide undertaking to reduce absolute emissions by a certain percentage in the interim period (until a pricing system requires it) is critical in order to:
 - a) drive behaviour change with the necessary urgency required to keep global warming within an adaptable range and ensure immediate progress towards meeting our 2030 domestic (a 10% reduction below 2017 levels) and Paris Agreement emissions targets;

² *He Waka Eke Noa – Our Future in Our Hands*, Primary Sector Climate Change Commitment, paragraph 1.

³ *Ibid*, paragraph 21.

⁴ MfE Briefing on “Minimum requirements for a Voluntary Accord with the Agriculture Sector”, Thursday 23 May 2019, para 17.

⁵ Joint MfE / MPI Response to NZ Primary Sector Leaders’ Group proposal on Climate Change, 22 May 2019.

⁶ At para 3.

- b) avoid the risk that the sector's targets will eventually be more demanding due to inaction or insufficient action in the interregnum;
- c) enable the Climate Change Commission to meaningfully measure the sector's progress and thereby inform its carbon budget recommendations (and the level at which processor and / or farm-level pricing needs to be set);
- d) address allocative efficiency and equity concerns across the wider economy;
- e) respond to the likelihood that offshore markets will increasingly seek assurances on climate action;⁷ and
- f) slow the erosion of the sector's social licence to operate and New Zealand's international leadership and market/brand credentials, all of which are subject to increasing scrutiny.

B Level of commitment is low

- 7 The Commitment lacks the depth of ambition that the climate crisis demands. In the absence of an interim sector-wide emissions reduction target against which the sector's progress can be measured and its participants held accountable, the Commitment appears to be exclusively directed towards capacity-building. To the extent that the proposed new Schedule 5 seeks to incorporate the Commitment's milestones, it has done so only in relation to farm emissions reporting and plans. Although slightly more ambitious in temporality (all farms to be documenting their on-farm emissions by 31 December 2022 and 25% of all farms to have a written plan in place to measure and manage their emissions by the start of 2022), the modified milestones are limited to accelerating the roll out of farm emissions reporting and farm plans.
- 8 The proposed legislation anticipates that the Climate Change Commission will monitor and report on progress made against these milestones and towards compliance with farm-level obligations as set out in legislation by 30 June 2022, with the risk (and thus compliance-incentive) that the Minister for Climate Change has regulation-making powers to impose surrender obligations on processors if progress towards milestones is considered insufficient. These provisions are designed to "bolster the accountability and enforcement of the Commitment". Whilst the threat of introducing processor-level surrender obligations as early as July 2022 might accelerate emissions reporting and farm plan development, there appears to be no onus on the sector to meaningfully contribute to domestic reductions targets in the short-term.
- 9 In any case, MfE notes that "[n]either option [sector-Government agreement or processor-level pricing] is expected to result in sizable emissions reductions in the short term. Officials' modelling estimates a processor-level NZ ETS would achieve a reduction in New Zealand's emissions of 0.26% prior to 2025 if introduced."⁸ To be considering two options, neither of which are likely to deliver material emissions reductions over the next 5 years at least, seems completely irresponsible. This is particularly so when opportunities exist to deploy currently available mitigation strategies and more profitable land use and farming systems before a price incentive requires this.

⁷ Joint MfE / MPI briefing for Fielddays meeting on Climate Change with the Primary Sector Leaders Group, 12 June 2019, Appendix 3, at para 17.

⁸ MfE Final Policy Decisions for action on agricultural emissions: Draft Cabinet paper, 22 August 2019, para 12.

- 10 In July 2019, a joint MfE and MPI briefing outlined a number of “[a]ctions farmers can take to reduce their emissions ... if improved farm management practices are put in place.”⁹ These include increasing animal productivity, standing stock off pasture in winter if possible, managing pasture to ensure grass feed is optimised, increasing tree plantings on less productive land, “shifting to more arable and horticultural land uses, improved pasture management, and reductions in fertiliser use and high protein feed supplements,”¹⁰ reducing overall stock numbers and stocking rates, once-a-day milking, and planting forestry on farm land.¹¹ Ignoring the ability to secure easy wins in terms of absolute emission reductions and their associated co-benefits – including economic – through these available means undermines the credibility of the Commitment and the milestones proposed in Schedule 5, and more importantly, our ability to meet our international and domestic emissions reduction targets. Put simply, the approach is one of stalling real action.
- 11 In light of the evidence surrounding both the emissions reductions and increased profits that can derive from farm management changes, failing to require the sector to adopt such changes seems indefensible. MfE and MPI note that currently available mitigation strategies “together can potentially reduce emissions by 5-10% for some farm types while maintaining production.”¹² In further support, they note that farm management changes on Owl Farm in the Waikato involving reducing feed and lowering stocking rates showed an 8% reduction in on-farm emissions and 14% reduction in nutrient leaching into waterways whilst also increasing profits by 14% for the period 2016-2018. With results like this, the legislation should go beyond farm reporting and planning and start to address farm management practices and actual emission reductions.

C Risk of delaying genuine efforts to reduce is high

- 12 The Interim Climate Change Committee was concerned that a voluntary agreement between Government and the primary sector could lead to a delay in action on emissions on-farm, and Minister Shaw has noted that there are “risks in not moving fast enough”. The highly conditional nature of the Commitment elevates such concerns.
- 13 Whilst the Commitment includes an undertaking to work in good faith to design a system for reducing emissions, including a pricing mechanism, it is subject to several self-serving qualifiers, including that it must be “cost-effective”, “can be practically implemented at farm level”,¹³ and where “any price is part of a broader framework to support on-farm practice, *set at the margin*¹⁴ and *only to the extent necessary* to incentivise the uptake of *economically viable opportunities* that contribute to lower global emissions.”¹⁵ There is also an over-emphasis on the development and availability of, and reliance on, “new emissions mitigation technologies”, with *no* discussion of existing mitigation practices (or indeed the

⁹ Joint MfE / MPI briefing on Next steps for public consultation on agricultural emissions and update on the Primary Sector Leaders Group Proposal, 9 July 2019, Appendix 3, para 10.

¹⁰ Ministry for the Environment, Regulatory Impact Statement, page 3, footnote 3.

¹¹ CAB-19-SUB-0480, “Final policy decisions for action on agricultural emissions”, 6 September 2019, footnote 5.

¹² Joint MfE / MPI briefing on Next steps for public consultation on agricultural emissions and update on the Primary Sector Leaders Group Proposal, 9 July 2019, Appendix 3, para 11.

¹³ *He Waka Eke Noa*, page 11.

¹⁴ We note that earlier iterations of the Commitment further read “at which additional warming occurs”.

¹⁵ *He Waka Eke Noa* – Our Future in Our Hands, Primary Sector Climate Change Commitment, paragraph 2.

likely delays and uncertain outcomes associated with new mitigation technologies). Such conditions, and a refusal to expressly outline and acknowledge the existence of effective (and economically viable) mitigation strategies (including stock reduction and land use change as discussed above), weaken the Commitment, giving the sector grounds to contest and delay the design of an effective emissions reductions system, and thereby call into question the sector's willingness to "increase its urgency" and play its part.

- 14 MfE/MPI raised similar concerns in June, noting that "[w]hile the Proposal provides a commitment to work with the Government towards achieving a farm level pricing scheme by 2025 this is dependent on a number of conditions being met."¹⁶ One of those conditions originally read that any price would only be "set at the margin at which additional warming occurs". Responding to this condition, MfE/MPI noted that it was "not consistent with placing a price on all/every tonne of emissions. All other sectors face a price on their emissions regardless of the availability of cost effective mitigation."¹⁷ It also noted that the free allocation of units to farmers is designed to mitigate the social impacts of emissions pricing on rural communities, rather than "calibrate[d] ... with what technologies will be adopted".¹⁸ The highly qualified nature of the Commitment can therefore be seen as self-serving and creating a free-ride for the sector while other participants in the economy are actually playing their part.

D He Waka Eke Noa Steering group: Governance structure, implementation, enforceability and accountability concerns

- 15 The precise nature the proposed sector-Government collaboration will take to oversee the implementation of the *He Waka Eke Noa* commitments and milestones remains unclear. It has variously been described as a formal sector-Government agreement, 5-year Plan of Action, and a Joint Action Plan. Whilst the proposed Schedule 5 incorporates a modified set of milestones drawn from *He Waka Eke Noa*, the status of that Commitment and/or development, legal status and implementation of any sector-Government agreement or arrangement is not addressed.
- 16 Similarly, reference is made in Schedule 5 to a He Waka Eke Noa Steering group, but there does not seem to be any detail in relation to its:
- a) composition and constitution;
 - b) governance arrangements;
 - c) purpose and terms of reference;
 - d) accountability;
 - e) relationship with the Climate Change Commission.
- 17 Cabinet papers appear to agree that a technical advisory group would need to comprise representatives from industry, Government and iwi. However, scope for the inclusion of independent representatives should be included, as well as for annual reporting and auditing requirements. Potential conflicts of interest need to be properly addressed in the administrative design process.

¹⁶ Joint MfE / MPI briefing for Fielddays meeting on Climate Change with the Primary Sector Leaders Group, 12 June 2019.

¹⁷ Ibid at para 17.

¹⁸ Ibid at para 17.

E RECOMMENDATIONS

- 18 In light of the concerns in relation to both the Commitment and SOP 413 outlined above, we:
- a) urge the Government not to shy away from demonstrating stronger leadership on agricultural emissions and reflect the level of ambition and urgency necessary to achieve New Zealand's domestic and international reductions targets;
 - b) recommend the inclusion of an interim reductions target to be met through currently available mitigation practices so as to drive *immediate* behaviour change and emissions reductions;
 - c) recommend that further detail is set out in relation to the role, governance, and accountability of the He Waka Eke Noa Steering group, including but not limited to:
 - a. the composition and selection of its members;
 - b. its terms of reference;
 - c. progress reporting, transparency, accountability and auditing requirements; and
 - d. managing conflicts of interest;
 - d) request the publication of further information in relation to the nature, status, and development of the formal sector-Government agreement and / or Joint Action Plan.

APPENDIX A

The course of decision-making on *He Waka Eke Noa*: have policy concerns been adequately addressed?

- 1 As we understand it, under the Climate Change Response Act 2002:
 - farm-level reporting obligations on livestock emissions will be required under the NZ ETS from the year beginning 1 January 2024;
 - livestock emissions will be priced at the farm level and fertiliser emissions at the processor level in the NZ ETS from 2025 (until an alternative on-farm emissions pricing mechanism is developed); and
 - the Ministers for Climate Change and Agriculture will table a report to Parliament by 2022 in relation to the most appropriate core design features of a farm-level pricing scheme and the feasibility of its implementation from 2025.
- 2 In the *interim period* before 2025, Minister Shaw acknowledged in his Cabinet submission of 6 September that “there is also an opportunity to make progress to incentivise agricultural emissions reductions and support the transition to a farm-level pricing scheme.”¹⁹ In that regard, he favoured pricing livestock and fertiliser emissions at processor level in the NZ ETS from 2021, as recommended by the Interim Climate Change Committee (**Option 1**), over a formal sector-government agreement based on the He Waka Eke Noa commitment (**Option 2**). This preference was informed by “its ability to provide an investment signal and regulatory line of sight, as well as aligning the approach to agriculture more closely with emissions pricing in other sectors of the economy.”²⁰ Importantly, Option 1 “introduces a policy lever to price and **manage emissions immediately**, helping shape investment decisions towards meeting targets from the start of the 2020s.”²¹
- 3 Whilst acknowledging that a formal sector-government agreement for the interim period (in the alternative) could achieve greater buy-in from the sector, Minister Shaw concluded that: “as it stands, the Commitment proposed by sector leaders *does not provide an appropriate level of accountability or legal enforceability, and it lacks detail about how it would be implemented.*”²² To this end, a formal sector-government agreement “provides less short-term assurance of agricultural emissions reductions and less investment predictability.”²³ We entirely agree.
- 4 As outlined in a one page Cabinet paper appendix summarising the pros and cons of Option 1 v Option 2 (dated 12 September), the Ministry for the Environment conceded that the risks of a formal sector-government agreement include that:
 - there is ***no incentive for emissions reductions in the short term***;
 - there ***is an incentive on the sector to delay and work to avoid a price in 2025 rather than toward it***; and
 - further to the point above, an improved agreement will take time to agree and implement, “with no guaranteed outcome”.²⁴

¹⁹ CAB-19-SUB-0480, “Final policy decisions for action on agricultural emissions”, 6 September 2019, page 2, para 11.

²⁰ Ibid, at page 3, para 12.

²¹ Ibid, at page 11, para 58.

²² Ibid, at page 4, para 17.

²³ Ibid, page 14, para 75.

²⁴ Ibid, page 15, at para 77.

5 The urgency for immediate action to reduce emissions across the entire economy, not least its largest emitter, simply cannot allow for the possibility of these perverse outcomes. As Minister Shaw demonstrated in his 6 September paper:

...more targeted and widespread action is needed. It is not enough simply to slow emissions growth or reduce emissions intensity; we must reduce the total volume of emissions. Gross agricultural emissions increased by 13.5% over 1990-2017; methane and nitrous oxide emissions increased by 7.5% and 28.8%, respectively. The main drivers of change over this period were 650% increase in the application of synthetic fertiliser and the dairy herd population increasing by 90%.

6 Minister Shaw's position was also informed by international precedent, noting that the UK's "industry-led voluntary approach to emissions reduction in agriculture is not on track to deliver the required levels of emissions reduction."²⁵

6 However, if advanced, the Minister submitted it would need:

- an annual review of progress in 2020-2022 by an independent monitor (such as an auditing or consultancy firm), including a description of progress towards meeting the proposed legislative timeframes for farm level reporting and pricing, as well as recommendations to address any barriers to implementation; and
- a regulation-making power to enable processor-level surrender obligations for both livestock and fertiliser emissions by Order in Council at any time prior to 2025, if the Minister for Climate Change in consultation with the Minister for Agriculture is satisfied there is insufficient progress towards meeting the legislative milestones (having regard to any report provided by the independent monitor).

7 In addition, Minister Shaw advised that further discussions with the Primary Sector Leaders Group would be required to seek the sector leaders' commitment to:

- reflect the same governance model as that proposed for the [Agricultural Emissions] Fund ..., with representation and technical support from the sector, government and iwi/Maori;²⁶ and
- include in the Commitment stronger support for a farm-level emissions pricing mechanism from 2025, and if not achievable, acknowledgement that the Government will price emissions at the processor level from 2025.

8 Minister Shaw concluded that "this could take time, with uncertain outcomes. ***Given the need to provide certainty and stability, as well as the urgent need for action to reduce emissions across the whole economy, I do not recommend Option 2.***"²⁷

9 On 16 September 2019, however, Cabinet agreed "that the preferred interim option is to develop a modified version of Option 2 as set out in the paper attached to CAB-19-SUB-0840."²⁸

²⁵ Ibid, page 14, at para 76.

²⁶ We note that Minister Shaw recommended that Cabinet delegate decisions regarding the design of the Agricultural Emissions Fund and joint Action Plan Governance Group to the Ministers for Climate Change, of Agriculture, for the Environment, and of Forestry. Refer page 14, para 70.

²⁷ Ibid, page 4.

²⁸ CAB-19-MIN-0480, at para 33.

- 10 Subsequently, in a Cabinet paper released on 21 October 2019, Minister Shaw provided an update on decisions taken by the Ministers with Power to Act in relation to a modified formal sector-government agreement:
- to bolster the level of accountability and enforceability in the Commitment, the CCRA would be amended to:
 - include a legislative requirement for the Climate Change Commission to:
 - monitor progress towards the commitments made in the draft Primary Sector Climate Change Commitment, including the milestones listed in Annex 1 of the Commitment, as well as progress towards meeting the farm-level emissions reporting and obligation timeframes; and
 - report by 30 June 2022 on progress made to date on the commitments, any barriers to implementation, and what further steps, if any, are required to meet the farm-level reporting and obligations timeframes.
 - create a regulation-making power that may be used by the Minister for Climate Change, in consultation with the Minister of Agriculture, by Order in Council at any time from July 2022 onwards, to apply processor-level surrender obligations for agriculture in the NZ ETS, if the responsible Minister has reason to believe, based on the monitoring of the Climate Change Commission, that other steps would be insufficient to achieve the farm level reporting and obligation timeframes.
- 11 The Minister has undertaken to report back to Cabinet on two further aspects of the Commitment, including the formation of a small governance group accountable for delivery of the Commitment. This group is to include sector representatives, government officials, and iwi Māori representatives. How the Commitment will be funded is another aspect, with the Minister recognising that “[a]ll other sectors of the economy face emissions pricing, so it is important that the sector contributes financially in other ways to the transition to a low emissions economy.”

APPENDIX B

Relevant extracts from MfE's "Reducing greenhouse gas emissions from the agriculture sector – Regulatory Impact Assessment", 6 September 2019

Submitters [who] preferred this option noted that it provided a stronger incentive for behaviour change than a formal-sector agreement, there was more certainty of meeting emissions reduction targets, it puts a meaningful price on agricultural emissions now, and it generates more funding (compared [to the formal-sector agreement]) to support the sector. (Page 47, para 146)

*Submitters that opposed this option noted concerns that there is **no regulatory or financial onus on the industry to reduce its emissions; this option does not address matters of responsibility and enforceability in the event that significant emissions reductions does not occur; and some feared that the industry would resist or delay effective action.** (Page 47, para 151)*

***[I]t does not send a clear signal that action is needed to reduce emissions quickly and could be seen as a way to further delay policy decisions on emissions pricing.** ... Compared to the status quo this option does not increase investment certainty to factor emissions prices into business decisions in the short term (i.e. bank ROIs and businesses bottom lines). (Page 49)*

***Higher likelihood of slower transition to low emissions economy compared to [processor level pricing] as potential for no incentive to invest in lower emissions technologies and practices to reduce agricultural emissions over the short term (i.e. if agreement fails), so there is [a] higher risk of more rapid emissions reductions being required after 2025.** (Page 51)*

More likely the agreement will generate less funds that can be used to prepare for 2025 farm level pricing than [processor level pricing] (and Government will need to cover more of these costs). The sector has committed \$25 million/year to deliver a programme of action and committed to "explore options for raising additional funding if required, under a co-investment approach with government." However levy bodies can only increase levies if [a] majority of levy parties agree. There is a risk that attempts to increase levies to cover any additional costs will not be supported by farmers. (Page 50)

***Reducing agricultural greenhouse emissions will also contribute to the ongoing social licence and sustainability of the agriculture sector,** including co-benefits where reducing emissions will also help deal with other environmental pressures, such as better management of freshwater resources. (Page 3 – Also noted that reductions will avoid the cost of purchasing international units.)*

*Noting the need to incentivise mitigation activity comparable with action in other sector: This will increase the **allocative efficiency** of the New Zealand economy by avoiding resources being misdirected to higher cost abatement in other sectors. It will also improve **dynamic efficiency** by helping ensure investment in innovation and technology development so that agriculture does not face costs of future abatement that are higher than necessary. (Page 4)*

***[Social licence]** arises from being seen as playing a responsible role in the global effort to restrict temperature rise and keep the damage losses and adaptation costs of climate change to within tenable limits. ... Internationally, it is recognised that the agriculture sector is an important export sector and a key contributor to the New Zealand economy, and that agriculture emissions are an unusually large proportion of our emissions profile. However, as other nations make strong reductions in their carbon emissions, agricultural*

emissions will increase as a proportion of total global emissions, and become an **increasing focus for New Zealand's leadership credentials**. Taking action on agricultural emissions will strengthen New Zealand's hand in the globally negotiated system under the Paris Agreement, to help bring other nations along with us to deliver the increasingly ambitious action on climate change that is required, and distribute the burden efficiently and equitably between nations." (Page 4) [note we are already seeing this to be compromised at COP 25 through interrogation of reductions and commitments by other countries]

The main government policies directed at agriculture emissions to date have focused on encouraging research and development into innovative solutions and low emissions technologies. (Page 20, para 39)

Despite producing 48% of New Zealand's GHG emissions, currently there is no targeted policy framework to drive agriculture emission reductions. Voluntary efforts to reduce emissions by individual across (for example, farmers, growers and sector organisations) have not been, and are unlikely to be enough to drive mitigation efforts at the level needed to meet New Zealand's current and future climate change targets. (Page 20, para 43)

New Zealand's 2030 NDC target is ambitious, and future targets under the Paris Agreement are required to increase that ambition over time. **Not meeting emissions targets poses large risks for New Zealand:** either a **fiscal risk** (if the Government chooses to meet the shortfall by buying international emissions units), a **reputational risk** (if New Zealand is perceived in any way not to be on track to meet its international obligation), or a **risk to economic development** (if other sectors must make large emission reductions to ensure New Zealand meets its climate change targets). (Page 21, para 45)

Indicative analysis from the Ministry for the Environment's modelling of marginal abatement cost curves and by the Biological Emissions Reference Group (BERG) suggests **cost-effective mitigation exists that is not being taken up by farmers and growers**. For example, analysis for the BERG found that if there was widespread adoption of currently available mitigation options (mainly farm management practices) an approximately 10% reduction in absolute biological emissions from pasture-based livestock is possible. The ability of many farmers to implement such practices varies widely, and will in some cases be limited by non-price barriers (such as lack of information, and adequate measurement and management tools). (Page 21, para 46)

Every major emitting sector in New Zealand, apart from agriculture and horticulture, currently has a financial incentive to reduce emissions through the NZ ETS. There is debate around the amount of emission reductions the agriculture sector ought to achieve, given the relatively short amount of time methane contributes to warming while it is in the atmosphere, and the limited number of technologies available to reduce emissions. However, **there is a widespread view that the agriculture sector ought to do more to help New Zealand reach its climate change targets to reduce the financial, economic and reputational burden faced by the rest of New Zealand. If the agricultural sector does not start making contributions towards meeting New Zealand's climate change targets soon, there is a risk that all other sectors of the economy will need to make more sudden and costly transitions to a low emissions economy in the future.** (Page 21, paras 47 – 48).

Cabinet agreed that New Zealand will: ... by 2020: demonstrate its commitment to leadership on climate change and promote global action to achieve the Paris Agreement's temperature goal[; and] be on track to meeting its first emissions budget

under the proposed Zero Carbon Act. For a productive economy and allocative efficiency across sectors of the New Zealand economy, incentives to emitters of agricultural emissions to reduce emissions need to align with incentives in place for [the] rest of the economy to reduce emissions (or increase sequestration). (Page 22, paras 52 – 53).