



He Waka Eke Noa—
**OUR FUTURE
IN OUR HANDS**



PRIMARY SECTOR CLIMATE CHANGE COMMITMENT





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1. This document outlines our collective commitment in response to the challenges posed by climate change and to contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels, whilst maintaining food production. It represents a high-level statement of our vision for, and commitment to, reducing agricultural greenhouse gas (GHG) emissions. We will adapt to climate change, while enhancing our reputation for safe and sustainable food production and maintaining our competitiveness in international markets.
2. 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. The sector will work with government to design a pricing mechanism where any price is part of a broader framework to support on-farm practice change, set at the margin and only to the extent necessary to incentivise the uptake of economically viable opportunities that contribute to lower global emissions. The primary sector's proposed 5-year programme of action is aimed at ensuring farmers and growers are equipped with the knowledge and tools they need to deliver emissions reductions while maintaining profitability.

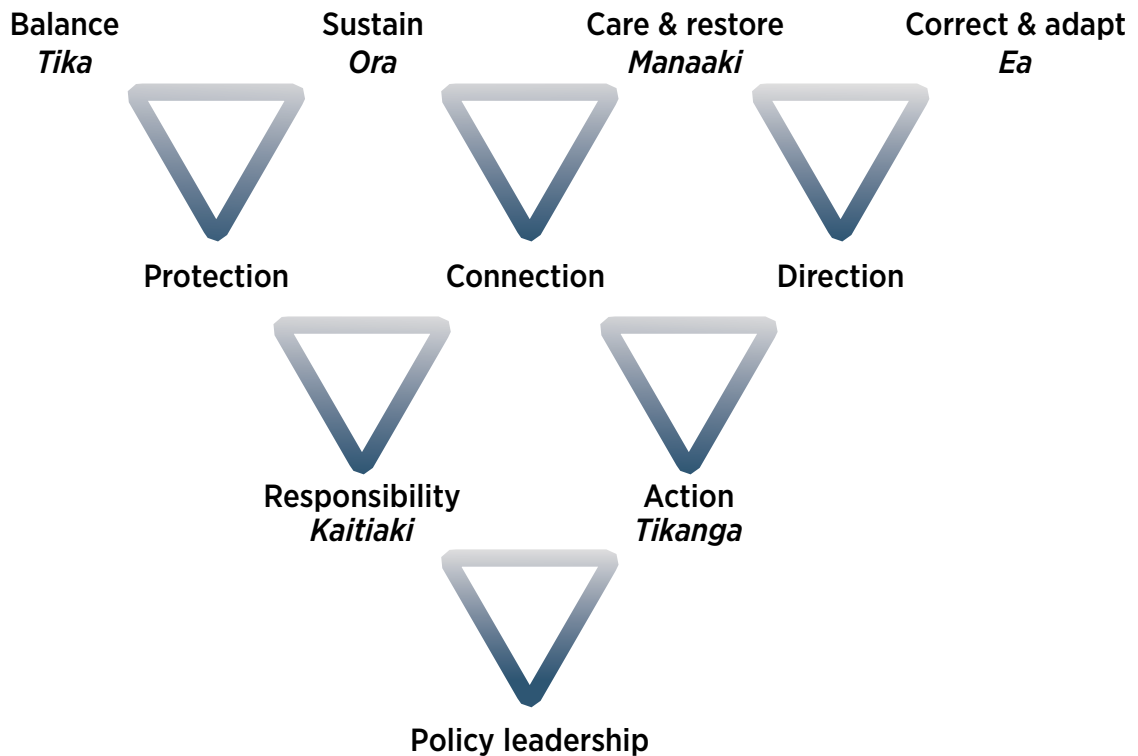
OUR VISION

3. Aotearoa New Zealand depends heavily on its land, soil and water for current and future wellbeing. However, as a country – and indeed as a planet – we are exceeding some environmental limits, posing risks to our future prosperity.
4. The stakes are high. New Zealand’s primary sector contributes one fifth of our GDP, generate 1 in 10 jobs and produce 75% of our merchandise exports.
5. Primary sector leaders acknowledge change is required and share the Government’s aspirations to shift to higher value, more environmentally sustainable farming systems. This includes a commitment to mitigating the primary sector’s contribution to climate change through actions that reduce or offset emissions, in support of the Paris goals. We will respond to the threats of climate change in a way that is environmentally, socially, culturally and economically sustainable.
6. Achieving change on the ground is a massive challenge. While most farmers and growers believe in climate change and are focused on adapting to it, few understand the practical actions they can take and there is a need to expand the toolbox available to them. Further, the challenge of reducing emissions sits alongside the need to maintain and improve water quality, biosecurity, biodiversity, animal welfare, and financial viability within an integrated farm system. Without creating the right environment to incentivise and support change, farmers and growers will struggle with these challenges and we risk undermining the competitiveness and resilience of our primary sectors. This is important given the stresses and strains our farmers and rural communities are experiencing.
7. Primary sector leaders acknowledge these challenges and have already taken steps to respond. However, further action is required to address the climate challenges both New Zealand and the world face, and the primary sector is committed to playing its part.
8. This statement outlines the commitment by the primary sector to tackle climate change and provides a set of actions that we propose to take together in partnership with iwi/Māori and government.
9. Taking urgent action and responsibility now is critical in order to protect, restore and sustain our environment and to enhance our well-being and that of future generations. This is an approach that aligns strongly with Maori values as kaitiaki and active caretakers of our environment. These are values we all hold and we all share this responsibility.



FOUNDATIONAL PRINCIPLES

10. Our framework for a collective response—Te Hau Ora o te Ao principles—is illustrated by the following diagram:



11. Underpinning this framework is a set of foundational principles, partnerships and relationships.

Principles

- 12. Our atmosphere is important in and of itself. It has an intrinsic and inherent value which must be recognised and protected.
- 13. Our atmosphere must meet the living needs of all Earth's species. All creatures have a right to a life-sustaining atmosphere and while people ought to be able to act to provide for their needs, this does not necessarily extend to failing to meet others' wants or expectations.
- 14. Our actions should not deplete the life-supporting qualities of our atmosphere. The hau (life-force and integrity) of our atmosphere is to be maintained and supported; this requires a combination of scientific and matauranga Maori knowledge and understanding.

Partnerships

- 15. New Zealand's dual heritage provides us an opportunity to develop a shared set of values, principles, and language in response to climate change. We are the inheritors of two powerful systems of knowledge. We have a chance to use the wisdom and understanding of both systems to establish a unique and relevant New Zealand response to climate change. To do so, we need to focus on building a strong partnership with shared ideas, collaborative directions, and common belief.

Relationships

- 16. The pathway forward is the pathway that pulls us together. Our first relationship is made possible by the Treaty of Waitangi and this needs to be reflected in the leadership roles, the collaborative relationships, the community responses that emerge through this process. Our response to climate change needs to build a sense of partnership and connection across our communities. It needs to be locally led and designed in such a way as to build social cohesion (he waka eke noa) and promote social equity.

PARTNERSHIP-BASED APPROACH

17. If New Zealand is to make a difference in climate change, we need to stand shoulder-to-shoulder under a common shared set of values and principles.
18. Achieving enduring progress towards the goals of mitigating agricultural emissions and building resilience of our primary sectors requires a genuine partnership between the primary sector, iwi/Māori and the government. This approach represents a departure from the past practice in this sector and requires us to forge new ground but we are strongly committed to making this work.
19. Key features of this partnership approach include a commitment to:
 - Developing common goals and a shared set of values and principles that underpin the relationship and how we will work together
 - An inclusive and participatory approach that recognises the wide range of stakeholders with a vested interest in the programme of action
 - Co-designing a detailed programme of action, including identifying key deliverables and milestones
 - Trialling and learning from experience, including reviewing and refining the programme of action



20. The primary sector is committed to ensuring there is strong leadership, oversight and operational support to coordinate delivery of the Programme of Action, including a governance group (with representation from each of the primary industries, iwi/Māori and the government), clear accountabilities for action and commitment to transparent progress reporting.



5-YEAR PROGRAMME OF ACTION

21. Given the urgency of the climate challenge, it is critical that the primary sector increases its urgency to deliver actions that will support the reduction and offsetting of its emissions and to strengthen resilience to the impacts of climate change on farms and rural communities.
22. While appropriate pricing mechanisms for incentivising emissions reductions at farm level by 2025 can have an important role to play in incentivising change, creating an environment that enables and supports farmers and growers to make changes on-the-ground is equally important. This means:
 - Ensuring farmers and growers understand their emissions sources and sinks, and have confidence in the means of estimating them at farm-level (including the potential for offsets from sequestration)
 - Equipping farmers and growers with the knowledge, tools and technologies for potential for offsets from sequestration)
 - Equipping farmers and growers with the knowledge, tools and technologies for mitigating and offsetting their on-farm emissions, including access to professional farm advice on farming systems and available practices and technologies
 - Ensuring farmers understand the implications of alternative options for reducing emissions on farm performance, enabling them to confidently take decisions. This includes understanding the implications for other aspects of environmental performance (e.g., water quality, animal welfare, biodiversity) as well as on product quality, production and profitability
 - Having confidence that there is appropriate investment in the discovery, development and commercialisation of new emissions mitigation technologies, and a commitment to making these available as soon as possible to support the transition. This includes ensuring our regulatory systems are fit for purpose, and enable the development and rapid uptake of safe, effective and reliable emission reduction technologies.
23. The primary sector has put significant work into the development of a programme of action designed to address many of the issues outlined above. This includes a commitment to:
 - Delivering a system for estimating and benchmarking farm-level GHG emissions to ensure farmers understand their emissions footprint, sources and sinks.
 - Rolling out integrated Farm Environment Plans, covering emissions reductions, offsets and adaptation, to all farmers by 2025.
 - Building climate change mitigation knowledge and practice amongst farmers, growers and rural professionals, including through a step-change in extension and engagement programmes.
 - Increased support for investment in research, development and commercialisation to expand the tools and technologies available to farmers to reduce emissions, and to accelerate their uptake.
 - Encouraging innovation and early adoption of tools and practices that deliver emissions reductions, including working with the government to put in place appropriate mechanisms for recognising early adopters and promoting them as exemplars to help other farmers and growers to reduce their emissions.
 - Engaging with the 1 billion trees programme to enhance on-farm carbon sinks to offset farm emissions consistent with the 'right tree in the right place' approach.
 - Delivering region-and sector-specific adaptation guidance that can be incorporated into Farm Environment Plans so all farmers and growers are prepared for the effects of climate change.
 - Working with government to develop appropriate pricing mechanisms.
 - Demonstrating leadership globally to encourage momentum on agricultural emissions reduction.
24. In progressing the above programme of action, we cannot follow a 'one-size-fits all' approach. Our primary sector is diverse, comprising pastoral, horticultural and arable sectors, with farmers and growers differing in their level of awareness, motivation and capability to act. These differences will need to be worked through in further developing the programme of action to be delivered.



25. Māori landowners and agribusinesses face unique issues and challenges. Māori will forever remain on the land, and have stories, identity and connections that define them as part of the land. Their relationship is different, their motivations, aspirations and expectations are different. Many Māori and iwi-run organisations and businesses already practise kaitiakitanga and are actively thinking about how to be more sustainable; they understand it is the right thing to do. However, despite this willingness, most Māori land holdings are small and often limited in their capacity to afford new farming technologies, services, and practices. Meeting these challenges will require a tailored approach.
26. The primary sector has put significant considerable thought into the core elements of a programme of action and how these could be delivered (see Annex 1 for the draft 5-year programme of action). This includes how the primary sector can best encourage and support early adopters. Annex 2 provides the primary sector's initial thinking on how to equip and incentivise farmers to make early progress towards emissions reduction.
27. The proposed Programme of Action should be considered a draft for discussion. We are conscious there are a wide range of ideas and perspectives on this, and significant work is already underway across government, industry and in rural communities that needs to be built upon rather than duplicated. That is why a partnership approach and co-design approach to further developing the programme of action is needed.
28. The Foundation for Arable Research and Horticulture New Zealand support the commitments set out in the main body of this document, support the Paris goals while maintaining food supply and commit to working with the Government, Iwi and all sector participants to progress the changes necessary to achieve permanent emissions reductions benefiting the environment, social, cultural and economic sustainability of New Zealand's rural and urban communities. We will separately address our sectors' key issues and proposed actions plans with Government and Iwi as future discussions take place.

INVESTMENT AND FUNDING

29. The primary sector is committed to investing its own resources to develop, implement and support the 5-year programme of action, including funding from farmer levies and commercial activities. Indeed, more than \$25 million per annum has already been mobilised by the sector for investment in actions to mitigate and adapt to climate change (see Annex 3 for a summary).
30. There is a need to review existing expenditure and to consider how it might be best deployed and to ensure alignment between commercial and government resources. Taking a combined approach will ensure we avoid duplication and optimise the overall investment required.
31. In addition to its existing investment, the primary sector is committed to exploring options for raising additional funding if required, under a co-investment approach with government. There are opportunities to leverage off the significant government investment in the Sustainable Land Use package (announced in Budget 2019). Jointly defining and targeting the right communities of interests, together, will ensure we can affect greater change through combined effort and focused resources.

SUGGESTED NEXT STEPS

32. Primary sector leaders invite government to discuss this proposal and to work with us and iwi/Māori to finalise the programme of action, including the specific arrangements for leadership, governance and delivery.

ANNEX 1—DRAFT 5-YEAR PRIMARY SECTOR PROGRAMME OF ACTION

Work-streams	Actions	Milestones
Farm emissions reporting	<p>The primary sector will work with MPI to develop an agreed methodology and systems for calculating net on-farm emissions. This includes approaches to using models, definitions of farm boundaries, and quantification of on-farm sequestration, and processes for recognising new mitigations in calculations.</p> <p>Work to develop simple calculation tools is already well advanced. Further work to develop a farm level emissions accounting and reporting system needs to ensure:</p> <ul style="list-style-type: none"> - The system is compatible with simple and more complex emissions calculation systems for farmers - Systems are able to provide farmers with relevant emissions benchmark numbers that take into account their farming system, land type and location - That systems meet the needs of Māori agribusiness, including examining factors that are particular to Māori land including cultural prerogatives and are encouraging of Māori land development and innovation (e.g., through a focus on novel low-to-no GHG land uses) - There is appropriate transition support for farmers to understand and interpret emissions calculations, including through extension methods that are tailored to Māori. <p>Implement a programme integrating and aligning the development of under-developed and under-utilised Māori land with climate change plans, initiatives, research and project innovations.</p>	<p>By 2022, all farmers will know their farm emissions numbers.</p> <p>By 2024, piloting of an emissions reporting and benchmarking system will be completed.</p> <p>By 2025, a system for farm-level accounting and reporting of agricultural emissions will be in place at farm level.</p>
Farm environment plans (FEPs)	<p>The primary sector will work with MPI and MFE to expand the Good practice principle guidelines for FEP's to cover greenhouse gases.</p> <p>Māori agribusiness will work with MPI and TPK to develop an FEP plan framework that acknowledges the kaitiaki practices of Māori landowners (including the Hau Ora o te Ao) and that respond specifically to and maximise opportunities for Māori using mixed farming systems.</p> <p>The primary sector, iwi/Māori and the government work together across the FEP development process to ensure alignment, cross-fertilisation, co-ordination, and confidence in the application of FEP practices.</p> <p>The primary sector will share experience and expertise in FEP development, roll-out, uptake and support mechanisms with government and Māori agribusiness.</p> <p>The primary sector will continue to continue work with MPI on the development of an integrated farm planning framework (informed by Māori agribusiness where relevant) that provides a single framework for farmers to utilise in the management of multifaceted farm sustainability considerations.</p> <p>The primary sector will work with rural professionals and regional councils to ensure farm environment plans give consideration to the wider farm system, rather than compartmentalising environmental outcomes.</p>	<p>By 2025, All farms will have a farm environment plan in place.</p> <p>Progressive targets for uptake of FEPs over the period to 2025 will be developed and agreed with the government as part of the finalisation of the proposed partnership.</p>

Work-streams	Actions	Milestones
<p>Extension and engagement</p>	<p>The primary sector will further develop extension programmes that build on existing platforms and activities including:</p> <ul style="list-style-type: none"> - Working with NZAGRC on a farmer-focused programme including development of additional resources for use by industry good extension teams, rural professionals, and processor representatives when interacting with farmers (e.g., videos focused on methane and soil carbon) and development of a one-stop-shop website for farm related climate change information - Updating the existing Massey University Course and developing a complementary GHG short seminar for rural professionals - Delivering an agri-sector behaviour change programme focussed on achieving awareness, acceptance and action (e.g. joint messaging bank, simple infographics, online resources (e.g., case studies, videos), farm tools and advice, roadshows - A specific Māori extension programme will be developed building on Māori cultural and environmental prerogatives will be delivered amongst Māori agribusiness networks in a way that informs, motivates and mobilises an effective Maori agri-business response. <p>In conjunction with TPK, we will work to develop a network of professionals and advisors (within regional councils) who understand Māori cultural prerogatives, Māori land development to assist Māori land owners transition to a farm planning and management framework the integrates a whole-of-whenua approach (kotahitanga) towards land development (mana tangata), and environmental sustainability (kaitikaitanga)—including specific Te Hau Ora o te Ao responsibilities.</p>	<p>By 2021, the proportion of farmers who understand the actions they can take to reduce farm GHGs will have increased from 50% to 90%.</p> <p>By 2022, the proportion of farmers who expect to place a moderate or major focus on reducing their GHGs will have increased from 23% to 70%.</p> <p>By 2025, 70% of farmers will agree they are managing their GHGs in accordance with their Farm Environment Plans.</p>
<p>Innovation and uptake</p>	<p>Continue industry co-investment into mitigation of agricultural gases (e.g., via the PGgRC work programme). This includes working to ensure current research, science and innovation activities are relevant and respond to the distinct and long-term cultural needs of Māori Agri-business.</p> <p>Develop technologies to decouple GHG's from feed eaten</p> <p>Work with industry-based programmes on Nitrogen surplus reduction to identify and add in the Nitrous Oxide component.</p> <p>Identify the impact on nitrous oxide from any methane mitigation, supporting national inventory incorporation.</p> <p>Engagement with commercial partners to bring tools to market for use by farmers.</p> <p>Development of best use guidelines, and piloting of new tools by industry good organisations (with linkages to extension programmes).</p> <p>Leveraging of partnership farms/model farm programmes/sector extension programmes to support and promote update of new tools.</p> <p>A specific and distinct Maori agri-business programme of guidelines and new tool promotion and uptake and leverage opportunities for farms/ model farm programmes/sector extension programmes.</p>	<p>Roll out of methane genetic selection to a pilot group of breeders during 2019-2020.</p> <p>Release to sheep breeders and industry in 2020.</p> <p>Incorporate mitigation of Brassica Rape into the national inventory by 2020.</p> <p>Accelerate the advancement of inhibitor and vaccine methane reduction technologies for use in grass fed systems and confirm their impacts on productivity by 2025.</p>

Work-streams	Actions	Milestones
On farm planting support	<p>Partner with the billion trees programme to advance planting of potential sequestration areas identified in farm plans.</p> <p>Work to achieve equitable access and utilisation of the billion trees programme for Māori landowners and specifically address the needs of under-developed and under-utilised land (in particular Māori under-developed and under-utilised land) as a priority.</p> <p>Develop tools that support farmers to identify the ‘right tree for the right places’ including to advance water quality, biodiversity, and shade for animal welfare. Ensure Māori farmers can identify their ‘right’ tree in a manner in keeping with their own traditional, cultural, historical, and community values.</p> <p>Ensure Māori agri-businesses have the tools and support to identify the right tree</p> <p>Work with government to develop systems for recognition of small-scale sequestration.</p>	<p>By 2022, programmes to assist farmers to establish and maintain newly planted areas will be established.</p> <p>By 2025, all farms will have planting opportunities identified in Farm Environment Plans, including recognition of small-scale sequestration.</p>
Adaptation strategies	<p>The primary sector will work with Government to:</p> <ul style="list-style-type: none"> - Produce a web-based document which provides regional guidance for farmers on the potential risks of adverse weather to their farm system. - Identify strategies of resilient farmers to future-proof their farm to the impacts of adverse weather - Develop an on-farm guide that farmers can use to identify strategies to minimise the impact of adverse climate change related events on their farm - Develop specific Māori guides (along traditional rohe boundaries) that outline the risks of adverse weather, farm resilience and future-proofing strategies. 	<p>By 2023, all farms will have access to region and sector specific climate change adaptation information and resources.</p> <p>By 2025, all farmers are prepared for the effects of climate change through identifying strategies and planning for adverse weather events in their farm environment plans.</p>
On-Farm Emissions Pricing Mechanism	<p>Design of agreed pricing mechanisms, taking into account core policy principles (see Annex 4):</p> <ul style="list-style-type: none"> - The obligation is set at the farm level where the emissions are created and best managed, but flexible to allow farmers to form ‘clubs’ or other groups (including with processors); - The price is set only on emissions in excess of emission targets, and to the extent necessary to incentivise the uptake of economically viable opportunities that translate to lower global emissions; - The price mechanism recognises on-farm sequestration and offsets; - Emissions pricing does not duplicate or conflict with other environmental policy instruments as far as possible (e.g. water, biodiversity, etc). 	<p>By 2025 there are appropriate pricing frameworks that can be practically implemented at farm level.</p>
International engagement	<p>Continued engagement in the Dairy Sustainability Framework to share New Zealand agricultural emissions reduction experience and to ensure New Zealand industry awareness of developments in other countries.</p> <p>Engagement in the World Farmers Organisation’s Farmers Driven Climate Change Agenda.</p> <p>Participation in global industry stakeholder dialogues regarding the role of agricultural methane in contributing to warming.</p>	<p>International stakeholders will understand New Zealand’s ambitions and actions towards climate neutral agricultural production.</p>

ANNEX 2—EQUIPPING AND INCENTIVISING FARMERS AND GROWERS TO MAKE EARLY PROGRESS TOWARDS EMISSIONS REDUCTION

1. There is great deal of interest from our farmers to understand the options they have to calculate and manage their on-farm emissions. This understanding has been fostered through the Dairy Action for Climate Change partnership farms and B+LNZ workshops and seminars for farmers on climate related topics.
2. DairyNZ has been supporting early adopters through their Dairy Environment Leaders programme which has been running for six years to create a culture of climate conscious agribusiness amongst farmers and the broader dairy industry. In May 2018, DairyNZ formed the Climate Change Ambassadors group to build a farmer cohort for building and sharing knowledge.
3. The proposed 5-year Programme of Action is aimed at addressing the barriers that currently exist to farmers' understanding of their emissions and options for reducing them. This includes a focus on new extension activities, and uptake of integrated farm planning, so farmers can confidently plan for reducing emissions in the context of their farming system.
4. Processors have a vital role to play in supporting and incentivising on-farm change:
 - The NZ Farm Assurance Programme aims for all NZ red meat farmers to become NZFAP-accredited and for all NZ meat exporting companies to adopt the foundation standard. Red meat produced under the NZFAP comes with assurances on integrity, origin, traceability, biosecurity, environmental sustainability and animal health and welfare.
 - Silver Fern Farms are surveying farmers on their awareness and intentions to manage their emissions, to understand potential for sequestration, and how to seek professional advice on improving their emissions footprint. It is running a pilot on farms across the country to better understand emissions-balance of farms and opportunities for achieving reductions.
 - Fonterra introduced a recognition and rewards system in December 2018, to recognise farmers for doing a great job on farm. The small minority of farmers who do not meet minimum standards will still be subject to demerits and other measures. Fonterra's model provides incentives through rewards such as Farmsource points or other benefits in the cooperative.
 - Miraka's "Te Ara Miraka" recognises excellence through the Miraka supply chain from the farm to the consumer, and financially rewards farmers who attain or exceed standards across people, the environment, animal welfare, milk quality and prosperity.
5. The diversity of approaches being taken by processors provides for innovative approaches to incentivising change.
6. Through the Programme of Action, the primary sector will work with early adopters to identify and share examples of emissions reduction practices. In addition, there is an opportunity for the primary sector to work alongside government to develop effective mechanisms for incentivising early adopters to achieve quick emissions reductions.
7. Another tool to support and incentivise early adopters is through recognition in award ceremonies. Three of the pre-eminent awards are the Ballance Farm Environment Awards, the Dairy Industry Awards, and the Ahuwhenua Trophy (Te Puni Kokiri Excellence in Maori Farming). All have a strong focus on demonstration of environmental best practice. Recognition through awards is a powerful way to socialise and normalise the behaviour of the early adopters.
8. Establishing mechanisms for recognising and rewarding scientifically valid sequestration has the potential to be a key mechanism by which farmer and grower engagement in climate change mitigation can be developed. The recognition of ongoing sequestration from existing farm and orchard vegetation will be important for encouraging early adopters, many of whom have already set aside permanent native bush, riparian planting, or other forms of sequestration.

ANNEX 3—PRIMARY SECTOR INVESTMENT IN CLIMATE CHANGE MITIGATION AND ADAPTATION

1. The primary sector is committed to investing its own resources to develop, implement and support the 5-year programme of action, including exploring options for raising additional funding if required, under a co-investment approach with government.
2. There are opportunities to leverage off the current investment by primary sector organisations and the significant government investment in the Sustainable Land Use package (announced in Budget 2019), taking a combined approach that seeks to avoid duplication and optimise the overall investment required.
3. This includes leveraging the more than \$25 million per annum that the primary sector has recently mobilised for investment in actions to mitigate and adapt to climate change:

DairyNZ

- DairyNZ reprioritised its research funding into sustainability initiatives 20 years ago and has been investing in GHG mitigation initiatives over the last decade. DairyNZ has now prioritised across its R&D, farmer knowledge and skills, engagement and behaviour change organisation an investment of around \$18 million per annum towards meeting the objectives of being a low-emissions, sustainable, and competitive dairy sector (~\$8 million on farmer change programmes and enhancing skills to lead to change, and ~\$10 million on R&D). DairyNZ contributes funding and resource towards:
 - PGGRC
 - environmental stewardship programmes including catchment-scale change studies, farm-systems research and practice change on forages and reducing the nitrogen footprint,
 - the Dairy Action for Climate Change programme of Partner Farms and the Dairy Environment Leaders programme,
 - improving genetics for emissions efficiency,
 - pasture research including lower-emissions forages, trials in the field of methane inhibitors,
 - building farmer financial and business capability to be able to understand costs and makes choices for lower emissions outcomes;
 - farm assessment and planning; and
 - engagement and extension services related to improved sustainably practices.
- As part of the Dairy Tomorrow sector strategy we have a commitment for all farms to implement and report under a certified farm sustainability plan (including GHG emissions) by 2025. All of this work contributes towards farmer capability and capacity to make choices to estimate and manage their farm systems to transition to a low- emissions sector.

Beef + Lamb New Zealand

- Through its Environment Strategy, as well as its extension, marketing and assurance programmes, B+LNZ has reprioritised \$5.4 million annually towards supporting the sheep and beef sector's transition to a carbon neutrality at the farm gate. This investment includes \$1.3m on raising awareness and understanding (including measurement tools); \$1.3m annually on research (including PGGRC, NZAGRC and Pastoral Genomics research to reduce GHG emissions); \$2m annually to support change, including every sheep and beef farmer having an active farm plan by the end of 2021, the creation of catchment communities, and supporting the planting and enhancement of sequestration; \$0.8m to provide assurance and monitor progress, including the NZFAP. In addition, B+LNZ is investing over \$5m per year on the Taste Pure Nature origin brand, to support exporters and farmers continuing to transition to higher value products, a key element in the transition to a low emissions sector.

Deer Industry NZ (DINZ)

- The deer industry has invested heavily (approximately \$1m per annum) with MPI through its PGP programme to develop effective farm practice change techniques. The focus of practice change in the industry is rapidly shifting to environmental stewardship, as DINZ seeks to achieve its objective of 100% of deer farmers having adopted a Farm Environment Plan. DINZ will work with government and other industries to integrate climate change mitigation and adaptation into farm plans, develop new resources (e.g., fact sheets, additional modules for the industry's Environmental Management Code of Practice) for use by farmers, and assist deer farming consultants to understand good farming practices for greenhouse gas emissions reductions. DINZ is committed to ongoing investment in agricultural GHG mitigation research alongside other industries and the government.

Horticulture NZ

- The horticulture sector has committed to investing \$1m annually on a range of activities to mitigate climate change and transition the sector to carbon neutrality. Particular areas of focus include extension activities and R&D for fertiliser use.

Processors

- Dairy and meat processors and exporters are undertaking significant actions to encourage farmer suppliers to understand and manage their emissions. Processors are now using carbon reductions as a metric in future capital decisions and are partnering with EECA in carbon reduction plans to shape capital expenditures. Processors are working with farmers to develop and implement Farm Environment Plans, involving significant expenditure by processors and farmers outside of this programme of action.

Māori Agribusiness

- FOMA and other Māori and iwi groups will work together with government and industry to develop suitable climate change, emission reduction and related systems for the Māori agribusiness sector.

ANNEX 4—POLICY MECHANISM PRINCIPLES

In the design of an appropriate pricing mechanism it is important that:

- The obligation is set at the farm level for biological methane on the basis that farmers have the most direct influence over the management decisions that influence the emissions and offsets within their farm systems. A price on emissions at the processor level will not in itself send a price signal to incentivise on-farm emissions reductions or sequestration;
- The price forms part of a broader framework to support on-farm emissions reductions. To this end we have welcomed the Government's ongoing commitment to agricultural emissions mitigations research. A price in isolation from programmes which support farmers in understanding their emissions and how best to influence them risks perverse outcomes and the potential for a higher cost transition from a social, cultural and economic perspective;
- Price is set at the margin and only to the extent necessary to incentivise the uptake of economically viable opportunities that translate to lower global emissions.
 - Any emissions charge on nitrous oxide or methane must be for the purpose of reinforcing uptake of opportunities for New Zealand farm net emissions reductions that translate to net emissions reductions from food supply globally.
 - Any emissions charge on nitrous oxide or methane is only to the extent that those emissions are in excess of emissions targets.
- Farmers are able to interact with the pricing system based on a net farm-gate point of obligation for their businesses including offsets. It is important that the system minimises administration and is practical for farmers and growers. The sector supports using one integrated farm pricing system for sequestration and emissions on their properties.
- The net price mechanism should recognise all cost effectively and practically measurable forms of on-farm sequestration and offsets supported by science:
 - Sequestration occurring on farm must be credited to that farm. Requiring farmers to enter the Forestry ETS in order to get a financial credit for their sequestration, to be offset against an emissions price, redirects the benefits of that sequestration to the national inventory to offset national fossil fuel and other emissions. Failing to credit the sequestration occurring in native forest found on farm or added to on farm will have significant adverse impacts on biodiversity protection and enhancement as well as wider environmental and landscape benefits.
 - The price mechanism should be designed so as to incentivise all forms of sequestration supported by science, including native vegetation, riparian planting, shelter belts, orchards and vines. These elements are excluded from the Forestry ETS, which is designed with a focus on extensive plantation forestry, not mixed and integrated land use.
 - The mechanism is non-duplicative in respect of other policy instruments which may have a similar outcome – For example water policy regulatory design which has the potential to have outcomes for both CH₄ and N₂O, or be in conflict with other legislation or policy (including biodiversity protection including landscapes, etc).
 - The mechanism is non-retrospective. In order for the policy to be effective and enduring, a farm-level mechanism should not be applied retrospectively.
 - The mechanism is flexible to allow farmers or growers to form 'clubs' or other groups of farmers or growers (including with processors) to manage their emissions and reporting. Farmer and growers would be able to voluntarily agree to aggregate their farm-level obligations for emissions and marginal price. Processors and other agribusinesses could incorporate such services into their supply or service contracts for farmers and growers.

