



Fit for a Better World

Accelerating our economic potential

Foreword

COVID-19 is a once-in-a-century public health crisis that has shaken societies and economies around the world. New Zealand will take time to recover from its impact.

As we restore our society and economy, we have an opportunity to rebuild better, in partnership with iwi/Māori and industry.

The food and fibres sector will be at the forefront of our export-led recovery and can lead the way to a more sustainable economy.

The actions set out in this document bring together opportunities that the Government considers will accelerate the productivity, sustainability and inclusiveness of the primary sector, to deliver more value for all New Zealanders.

Ministry for Primary Industries
Manatū Ahu Matua



The primary sector has agreed a vision for its future

In April 2018, the Minister of Agriculture established the Primary Sector Council to develop a shared direction for the food and fibres sector. The Council consulted widely, talking to hundreds of people from all parts of the sector and across rural communities to arrive at our first common vision and strategy. The vision, set out below, was launched by the Prime Minister at Lincoln University in December 2019.

Vision

of the Primary Sector Council

This is us

We are the farmers, growers, fishers, makers and crafters of Aotearoa New Zealand. We aspire to an enriched future by providing the world's most discerning consumers with outstanding, ethically-produced food, natural fibres, drinks, co- and bioproducts, all sourced from our land and oceans.

Our reason for being

We embrace the Māori concept of Te Taiao, a deep relationship of respect and reciprocity with the natural world. The health of the climate, land, water and living systems comes first. And when nature thrives so do our families, communities and businesses.

This is our vision

We are committed to meeting the greatest challenge humanity faces: rapidly moving to a low carbon emissions society, restoring the health of our water, reversing the decline in biodiversity and at the same time, feeding our people.

We will own our part and lead the change that comes with it, starting now.

The principles of Te Taiao define our relationship with nature. Alongside innovative science and technology, we are designing modern regenerative production systems fit for a better world. Within a generation they will be the foundation of our prosperity and the way we produce high-quality, trusted and healthy food, drinks and fibres. These outstanding products will speak of our land, oceans and people. They will be enjoyed by people all over the world, fulfilling their desires for functionality, wellbeing and aesthetics. Te Taiao, and the health and wellbeing of our communities and children for generations to come, will be the benchmark of how we measure success.

Our values

Integrity • Guardianship • Ingenuity • Respect

The COVID-19 crisis has shaken the world economy

In January 2020, the World Health Organization (WHO) began alerting countries to the threat of a deadly virus. By February the virus was crossing borders quickly and case numbers and fatalities in some countries were rising rapidly. In March, the WHO declared a global pandemic and New Zealand closed its borders to people and declared a state of national emergency. By early April most countries had imposed some form of lockdown on economic and social activity, to minimise contact between citizens in an attempt to save lives by slowing the virus's spread. Millions of people have become ill and hundreds of thousands have died. The resulting collapse in economic activity has led the International Monetary Fund to forecast the worst contraction in the global economy since the Great Depression.

New Zealand's approach to the pandemic has controlled its spread

New Zealand responded quickly based on public health measures in order to reduce the spread of COVID-19. On 25 March 2020, people were asked to stay at home and all workplaces were closed, except those businesses providing essential goods and services. This strategy has meant that the spread of the disease has been halted, without the large scale loss of life that could have occurred. Following a gradual reopening of society and the economy during April and May, the Government removed remaining domestic restrictions on 8 June.

The primary sector can be the foundation of New Zealand's recovery

As essential services, our primary sector food and beverage producers and processors stayed open throughout the crisis, with new hygiene rules to ensure workers were kept safe. Responding with urgency to identify opportunities to rebuild after COVID-19, the sector came together to do its best for New Zealand. Our primary sector has decades of experience developing efficient and market-responsive products and operating models, and it is well-positioned to be front and centre of our country's recovery and economic regeneration. With other big export sectors such as tourism and international education unable to reopen until it is safe for international visitors to cross our border, our primary sector exports will be more important than ever.



As essential services, many primary industries kept operating during Alert Level 4, with safe operating measures verified by MPI.

The road to recovery is an opportunity to build a better economy – starting now

Fit for a Better World is the Government's roadmap for accelerating the economic potential of the primary sector, with significant gains achievable in a decade. The primary sector is already on a path to transformation. The roadmap brings together opportunities to address concerns arising as a consequence of COVID-19, as well as issues that needed tackling prior to COVID-19, and offers transformational opportunities to accelerate a lift in the contribution of the primary sector. New Zealanders have a renewed sense of support and trust in the primary sector, and the important role it will play in maintaining our economic wellbeing. A renewed sense of connection with our primary sector will help us respond collectively as a nation.

Just as New Zealanders came together to fight COVID-19, the development of this roadmap has been a collaborative effort. We have drawn on our collective sector knowledge to pull together a roadmap for the next 10 years that is for all. We have identified a mix of short, medium and long-term actions that will be rolled out over the next few years, to enable us – the Government, government agencies, Māori, industry bodies, businesses, processors, farmers, fishers, foresters and growers – to work together to rebuild a better, stronger, more sustainable and more innovative sector.

We have solid foundations for our recovery...

New Zealand has a unique story to tell the world about its safe, high-quality food and fibre products.

Three principles underpin this roadmap:

Te Taiao

Our food and fibres sector is grounded in Te Taiao, a deep relationship of respect and reciprocity with the natural world that will ensure the long-term viability of our sectors and wellbeing of future generations. In partnership with Māori and across the community, we propose establishing a Te Taiao framework.



A zero carbon future

We will help address climate change by moving to a zero carbon society. Together we will restore the health of our freshwater and marine environments, and reverse the decline in biodiversity. This will enable our sectors to produce products from our land and oceans, by our people, that speak to who we are as a nation.

Quality products and a confident sector

We will support our food and fibres sector to meet increasing consumer demand for a secure supply of safe and healthy food, and for products that are produced and packaged ethically and sustainably.

Our consumers and markets must be front and centre as we adapt

Demand for New Zealand products is high

Primary sector exporters serve a diverse range of customers in over 150 countries. Customers range from large multinational businesses that rely on world-leading safety and quality attributes delivered to precise specifications, to individual consumers attracted to our high-end food, beverage and nutraceutical products.

Our reputation for integrity underpins it all. Regulators, customers and consumers in other countries know when we say we will deliver, we do.

There is significant scope to grow our customer base, building on our sustainable management of natural resources, our trusted regulatory and production systems, and our global reputation for honesty and competence. At the same time, we will need to be responsive to the considerable challenges that our major exporting sectors will face in accessing world markets.

Understanding fast-evolving consumer needs and preferences

Customers and consumers are at the centre of our journey to build a stronger economy while not compromising our broader environmental goals. As an exporting nation, what we produce and how we produce it must be connected to, and informed by, global markets and trends. Key to success as we move through the next 10 years will be constantly understanding and responding to the needs of customers, consumers and markets.

Demand will continue for a wide range of products to be exported and used in offshore manufacturing processes that meet the needs of a growing global population. Consumers in key markets will continue to prioritise high-quality food that is safe and healthy, and food and fibre products produced and packaged sustainably.

Our primary sectors have the opportunity to extract greater value across the value chain, by being responsive to evolving consumer wants and needs, and by being smarter and more innovative than our global competitors. Leveraging off our global brand is one way we can extract a global competitive advantage, but quality and integrity must continue to be at the heart of everything we do.

We must front foot our market access and international trade response

Export success requires sustained international effort

As a sector we need to be bold and act early to be highly visible in our current and potential markets, as well as in key international forums impacting our trade. New Zealand will engage internationally to keep markets open, and remove trade barriers and distortions (estimated to cost New Zealand \$10-15 billion per year pre-COVID-19), including those stemming from COVID-19. We will continue to explore improvements in requirements and processes to maximise efficiency in facilitating trade while still appropriately managing risks. This includes streamlining border clearance processes, the ongoing role of remote verification, use of electronic certification and ensuring our regulatory settings facilitate the growth of e-commerce.

We will prioritise free trade agreements, and strengthen relationships to build market and value-add opportunities for the sector, while also continuing to leverage off existing trade arrangements. We will also seek to ensure that trade distorting supports for foreign producers, introduced by other countries' governments during the COVID-19 shock, do not become permanent; and we will work to limit economic and environmentally harmful subsidies in the long-term.

During COVID-19, the primary sector has faced very few additional regulatory barriers from foreign governments, though disruptions to supply chains have been significant. MPI, working with other agencies, has helped to keep supply chains working.

The crisis has cast a spotlight on global food security and demonstrated the importance of international trade. It will be more important than ever, as the world recovers from the impacts of COVID-19, for us to lead and promote the value of international trade agreements and standard setting forums. New Zealand co-sponsored a United Nations declaration on supply chains that stressed the need for open markets and trade facilitation, and the importance of the World Trade Organization in setting predictable trade rules. This was signed by 175 countries.

One further lesson from COVID-19 is that those sectors with a diverse product and customer base were most able to ride out the challenges. Working with key sectors, we will use targeted approaches to building strategic relationships, free trade agreements, and technical co-operation to open new opportunities to diversify.

This roadmap is designed to achieve, within a decade, ambitious targets for a more productive, sustainable and inclusive economy

Our primary sectors can lead across the three pillars of New Zealand's economic recovery to achieve these ambitious targets:



Productivity:

Add **\$44 billion** in export earnings over the next decade via a focus on creating value and building off the strong position of our core sectors.



Sustainability:

Play our part in New Zealand's journey to a low emissions economy, by reducing biogenic methane to **24–47 percent below** 2017 levels by 2050, including to 10 percent below 2017 levels by 2030, and by restoring New Zealand's freshwater to a healthy state within a generation.



Inclusiveness:

Employ **10 percent more** Kiwis from **all** walks of life in the primary sector by 2030 and 10,000 more New Zealanders in the primary sector workforce over the next four years.

Building on the primary sector of today, we have the opportunity over the next decade to rebuild better

Productive

New Zealand has a comparative advantage in pastoral agriculture and plantation forestry, with a reputation for strong food, biosecurity and animal regulatory systems. Our multi-billion dollar dairy, forestry, red meat, seafood, horticulture and wine businesses will continue to form the backbone of our exports, and have potential to generate greater value through closer relationships with consumers and product differentiation. Working in partnership with Māori we have the opportunity to significantly develop the Māori economy. At the same time we can accelerate the development of new industries, products and markets leading to new growth in value, and invest in the fundamentals of science, innovation, data and skills.

Sustainable

Sustainability is central to our success, as part of our commitment to making the key shifts needed to live within our environmental limits. Our world leading partnership on reducing agricultural greenhouse gases, He Waka Eke Noa, will introduce farm-level pricing of agricultural greenhouse gas emissions to reduce the impact of our farms on the climate, and secure our reputation as the world's most sustainable provider of high-value food and fibres. The Primary Sector Council's vision places Te Taiao, the wellbeing of the natural world, at the heart of what we do. We have work underway on restoring the health of our waterways and are also taking steps to ensure the health of our ocean, biodiversity and soils. Environmental restoration projects are an integral part of the recovery.

Inclusive

The primary sector can help meet New Zealand's urgent social needs following the pandemic by getting people back into fulfilling jobs. We have an opportunity to work with the sector to attract more people into great jobs. We can ensure that all New Zealanders have enough safe and healthy food to eat. In the medium-term, we can support our economy and vibrant rural communities with attractive career opportunities across all areas of our sector.

Productive

We will build a more productive sector

Target: Lifting export earnings by \$10 billion per annum by 2030 which will bring in a cumulative \$44 billion more in earnings in a decade.

The COVID-19 crisis has exposed challenges for our sector: over-reliance on certain products and markets, producers who are vulnerable when supply chains and major markets are disrupted, and the threat that other countries may raise trade and non-tariff barriers. There are significant opportunities to build our presence in markets and to provide more products to discerning consumers that extract greater value by meeting their needs.

A multi-year work programme will take action in the following areas:

Transformational Opportunities

- **Water storage** – Focused development of small scale water storage to give farmers access to higher value land use options, product supply chains, and higher employment. This work will include ensuring that regulatory settings support investment. The Government has invested \$134 million over the last two years in water storage initiatives. Improved water storage and security is key to business and community resilience as it enables farmers and growers to diversify, and reduces exposure to drought and climate change events.
- **Accelerate the Aquaculture Strategy** – Aquaculture offers huge potential for sustainable growth, and early action would deliver this growth sooner. This includes improving regulatory settings and investment certainty, investing in critical wharf and hatchery infrastructure and unlocking open ocean aquaculture opportunities. This will increase the value of aquaculture to iwi and coastal communities, and sustainably increase the sector's annual revenue four-fold to \$3 billion, well ahead of the current 2035 target.

- **Horticulture development** – The horticulture sector has many high-growth performers, including kiwifruit, apples and wine – and there are others that could develop to sustainably provide similar levels of return. To enable this we would accelerate access to new high-value plant varieties and cultivars and support the commercialisation of new products. \$45.3 million has been invested through Budget 2020 to ensure resilience and management of biosecurity, market and environmental risks, as well as improvements to biosecurity facilities for importing new plant materials. Work will continue on regulatory settings to better manage risk.

Other Opportunities

- **Research, science, innovation and mātauranga Māori** – Delivering this roadmap will require alignment across the entire sector, but particularly within the research, science, innovation and mātauranga Māori parts of the sector. These are critical contributors to the creation of value, through new product development and process innovations. We will work to align our research and science settings to lift productivity, sustainability and value across the sector and speed up commercialising innovation. We will also address barriers to innovation, and drive the use of science and the food safety system to support increased value, including development of health and provenance claims in existing and new products.
- **New product development and revitalising the strong wool sector** – There are promising primary sector products that are not commercialised, often due to a lack of capital



available, the small scale of the relevant industry, and the high-risk nature of investment in expensive infrastructure prior to testing a product in markets and with consumers. We can better support product development for natural fibres and in new product categories, building on the strength of the dairy, red meat and horticulture sectors. Particular effort is required to lift the performance of the wool sector to ensure the maximum earnings potential is achieved for New Zealand from an important natural fibre.

- **Māori agribusiness** – To realise the potential of the Māori economy, and to address the economic and social impacts of COVID-19, there is an opportunity to expand the Māori agribusiness extension programme to support the increased productivity and sustainability of whenua Māori.
- **New bodies to drive transformation** – There will be an ongoing need for strategic issues and cross-sector engagement to be progressed by the sector for the sector, and to continue to partner with government agencies to address barriers to achieving transformational goals. The establishment of a primary sector think-tank to work on cutting edge commercial opportunities will raise the value-add of the primary sector, and a Māori Primary Sector Leaders Forum will strengthen our partnership and engagement with Māori.
- **Market access and development** – We will be visible in markets to tell the New Zealand story to maintain and enhance existing access, and to open new market access through addressing non-tariff barriers. There are opportunities to fast track solutions to support verification

and e-certification as part of the Government's role in digital supply chain solutions, and the development of modern legislation for both our import and export systems will enable easier access for our products and maintain confidence in them.

- **International trade** – Growth in the New Zealand primary sector relies on our ability to export our products internationally. We will support international engagement to remove trade distorting measures, including those stemming from COVID-19, while supporting the completion of free trade agreements, and strengthening relationships to better position primary sector exports. We will continue to collaborate with primary sector exporters to build cohesive market and consumer-led strategies with the sector and leverage off existing trade arrangements. The Government has invested \$216 million through Budget 2020 to enable NZTE to provide greater support to a broader group of exporters as they re-engage in international markets. Finally, we will boost advocacy for recognition of New Zealand's high primary production standards, including through investing in global and regional organisations.
- **Flexible regulatory systems** – The modernisation of our key regulatory systems, such as food safety, biosecurity and animal welfare, will support innovation, increase efficiency, and remove complexity while managing risk. This will allow us to maximise the impact of opportunities such as e-commerce while maintaining our ability to leverage off confidence in New Zealand's role as a producer of trusted, high-quality products.

Sustainable

...while managing within environmental limits...

Target: reducing methane emissions by 24 – 47% below 2017 levels by 2050.

We have an opportunity to use the economy-wide reset from COVID-19 to make the key shifts needed to build sustainability and the protection of our ecosystems as the foundation for all our food and fibre producers across land, freshwater and marine environments. Work is already underway to deliver more robust regulatory settings across freshwater, marine and climate. Key to our approach is working with the farmers, foresters, fishers and growers whose daily decisions shape the impact of the primary sector on our environment, using risk-based tools such as farm plans.

A multi-year work programme will take action in the following areas:

Transformational Opportunities

- **Transform the forestry sector** – As a renewable resource wood provides a significant opportunity to reduce the economy's reliance on fossil fuels. There is an opportunity to make better use of wood waste products to generate energy, and to develop sustainable products. We will identify new technologies to support the better use of wood waste products at commercial scale. Through the development of a Centre of Excellence for Timber Design we can also support better use of wood in buildings.
- **Refocusing our tree planting partnerships** – There is an opportunity to build on the success of over 15 years of supporting farmers and other land owners to plant trees. An investment of \$480 million has been made through the One Billion Trees and Crown Forestry Joint Venture Programme. This investment approach will focus on the diversification and strategic location of commercial species, both native and exotic. Through improved forest management we can produce higher value timber, and support appropriate afforestation of highly erodible land. A particular focus will be lifting Māori participation in the sector and adding value to unproductive land.
- **Regenerative farming and establishment of Te Taiao** – Achieving our sustainability goals requires a particular focus on the health of our soil, plants, animals and people. There is an opportunity to design a New Zealand based regenerative farming approach, based on current sustainable practices and a mindset of continuous improvement, and the principles of Te Taiao and the mātauranga that underpins it. Our approach will recognise the connection between the health of our land and the health and resilience of our communities, waterways, biodiversity and climate. In doing so, there is an expectation that regenerative farming systems will improve the profitability of farming while leaving behind a smaller environmental footprint.
- **He Waka Eke Noa** – We are committed to partnering with Māori and the sector, to provide a knowledge base and toolkit to help producers calculate and reduce their greenhouse gas emissions and adapt to climate change. This includes developing a farm-gate emissions pricing mechanism, and a centralised IT system for farmers to generate and record their emissions footprint. It will also build New Zealand's reputation for sustainable farming so we can capture more value from environmentally conscious consumers around the world.



- **Freshwater and productive land** – The health of our freshwater is vital for the health of our people, environment, and economy. In 2019, \$229 million was invested in a Productive and Sustainable Land Use package, to progress projects to protect and restore at-risk waterways and wetlands and provide support for farmers and growers to use their land more sustainably. The recently announced healthy waterways package aims to stop further degradation, make immediate improvements, and restore waterways within a generation. Implementation of the regulatory reforms will mean working with community catchment groups as one of the steps needed to improve environmental management. The package will also introduce mandatory freshwater farm environment plans, which will enable farmers and growers to be involved in setting and working towards tailored, risk-based solutions for their unique farming system. These plans, which could include erosion mitigation, innovative approaches to managing sediment flow, wetland restoration, biodiversity planting and land use diversification, will work alongside other farm plan programmes or existing industry schemes, allowing farmers to combine their environmental and business planning.

Other Opportunities

- **Fishing sector transition** – There is an opportunity to strengthen New Zealand's position as a world-leading source of sustainable and high-value seafood products. To date we have invested \$31 million to implement improved monitoring of the fishing catch on commercial vessels and to support extensive new protections for Hector's and Māui dolphins. We will support fishers to innovate fishing methods that avoid unwanted catch, underpinned by clearer rules to reduce the return of fish to the sea. On-board cameras will strengthen transparency and enhance verification of data to enable more agile management approaches. Together these measures will drive environmental performance and create value for fishers and New Zealand.
- **Business resilience** – We will support businesses to manage future disruptions without compromising animal welfare or environmental standards. The Government has invested \$5.4 million through Budget 2020 in critical resources to identify and manage animal welfare issues. We will encourage the sector to prepare for future challenges, including climate change adaptation, managing disruptions to supply chains, and responding to changing consumer preferences. There is an opportunity to improve renewable energy options for rural businesses, and drive investment in transport projects that increase safety and resilience in regions and rural communities.
- **Better data and decision support tools** – To enable better management within environmental limits and to back up our environmental reputation with consumers, we will develop systems, data and decision support tools to help farmers, growers and fishers make better choices.



Inclusive

...and playing our part to help all of New Zealand recover.

Target: Employing 10% more Kiwis from all walks of life in the primary sector by 2030 and 10,000 more New Zealanders in the primary sector workforce over the next four years

The COVID-19 crisis has resulted in many jobs lost. Through Budget 2020, \$1.1 billion has been invested to create new jobs in regional environmental projects, including weed and pest control and enhancing biodiversity. As part of building a more inclusive economy, we need to put the wellbeing of people and communities at the heart of what we do. We want to increase both the number of jobs in the primary sector and the participation rate of New Zealanders in those jobs.

A multi-year work programme will take action in the following areas:

- **New Zealanders in jobs** – There is a need to increase the visibility of employment opportunities and the attractiveness of career pathways in the primary sector, including in support industries such as farm advisory services. Different levels of skill will be required across the jobs spectrum, and as part of Budget 2020 \$25.3 million has been invested to attract and retrain recently unemployed New Zealanders into the primary sector. Getting more people into jobs, supporting employers to make opportunities visible, providing excellent and safe workplaces while upskilling New Zealanders at all stages of their careers, are all critical parts of a transformation that will see more Kiwis working in the primary sector.

This will grow the primary sector workforce so that we have 10,000 more New Zealanders, including more women and Māori, in quality primary sector jobs. This in turn will help to raise living standards and address the current workforce shortfall.

- **Safe and healthy food** – We can help make sure that healthy food reaches all New Zealanders by building supply chain capacity to enable the redistribution of products to struggling communities. To support people in need as a result of COVID-19, \$15 million has been provided to redirect food that would otherwise have been wasted, to those in need. There is an opportunity to improve capability to proactively detect, and respond to, food safety issues and work more with consumers to enable them to make good decisions about food.
- **Connect rural New Zealanders** – Bringing together isolated or unsupported businesses with funding will support innovation, best practice and wellbeing. We will support investment in improved digital infrastructure, which will enable rural businesses to work smarter, to be more productive and sustainable.
- **Thriving rural communities** – The Government has spent \$20.2 million through Budget 2020 to help rural and fisher communities recover from COVID-19. We can ensure our rural communities are places people want to live, by supporting community hubs and social support networks such as Rural Support Trusts as well as providing attractive employment opportunities. This will improve living standards and ensure our rural communities remain vibrant, resilient and sustainable.

Investing in the future of the primary sector

This plan sets out the Government and primary sector's response to both COVID-19 and long standing challenges. It builds on the work that has already started and lays out a roadmap that will accelerate the transformation we need. This plan supports action to generate an additional \$44 billion in export earnings over the next decade, create and maintain jobs, and improve the environmental performance of the primary sector.

Existing programmes and investment mean we are starting from a strong base

Before COVID-19, the primary sector was already on a path to transformation. A significant programme of work has been underway for some time to improve the way we use our land, and to improve the health of our natural resource base. The Government and primary sector have been working together on programmes like He Waka Eke Noa, the Action for Healthy Waterways package, the One Billion Trees Programme, the Crown Forestry Joint Venture Programme, the Aquaculture Strategy, and water storage initiatives.

In response to COVID-19, the Government provided further funding through Budget 2020

- **\$1.1 billion** to create 11,000 jobs in regional New Zealand to restore our environment, including weed and pest control and enhancing biodiversity.
- **\$111.2 million** to provide support for rural and fisher communities, ensure the supply of food to vulnerable New Zealanders, address animal welfare issues, help progress horticulture opportunities for growth, and attract New Zealanders to employment opportunities in the primary sector.

This plan builds on these, and other, initiatives in which the Government is already investing, which include investment within the Sustainable Food and Fibres Futures Fund to support innovation and the creation of new value, and increasing the attractiveness of the primary sector as a career pathway.

Additional effort and investment will be needed over the next 10 years

Further investment over the 10-year timeframe of this plan – by both government and industry – will be needed to enable our primary sectors to continue to realise more return and value from our exports and to place the wellbeing of the natural world, our communities and future generations at the heart of our main productive sectors.

Not all initiatives require – or are ready for – additional funding at this point in time. Investment in the initiatives listed in the following table will be phased over the life of this plan.

Acceleration Roadmap

Action	Activities
Transformational Opportunities: Productive	
Water storage	<ul style="list-style-type: none"> Support development of small scale water storage solutions to enable land use change that increases productivity and builds climate resilience
Accelerate the Aquaculture Strategy	<ul style="list-style-type: none"> Improve regulatory settings for sustainable growth and investment certainty Develop wharf and hatchery infrastructure Unlock open ocean aquaculture
Horticulture development	<ul style="list-style-type: none"> Facilities to enable the importation of new plant genetic material and to support new breeding programmes Update regulatory settings to better manage risk
Other Opportunities: Productive	
Research, science, innovation and mātauranga Māori	<ul style="list-style-type: none"> Align research and science settings to the primary sector's strategic direction Address barriers to innovation Use food science to support health and provenance claims
New product development and revitalising the strong wool sector	<ul style="list-style-type: none"> Support natural fibres product development and the delivery of new products to market Accelerate investment within the Sustainable Food and Fibres Futures Fund to support COVID-19 recovery through innovation and creating new value
Māori Agribusiness	<ul style="list-style-type: none"> Expand the Māori Agribusiness Extension Programme to support increased productivity and sustainability of whenua Māori Further develop tools and support to unlock the potential of whenua Māori
New bodies to drive transformation	<ul style="list-style-type: none"> Establish a primary sector think-tank Establish a Māori Primary Sector Leaders Forum
Market access and development	<ul style="list-style-type: none"> Invest in solutions to enhance electronic certification Maximise visibility in markets and address non-tariff barriers Support conditions for food business innovation and growth, including e-commerce, supply chain improvements and streamlined rules Use consumer insights to drive individual and collective market development using digital go-to-market strategies and international storytelling with New Zealand Trade and Enterprise
International trade	<ul style="list-style-type: none"> Engage to remove trade distorting measures and complete free trade agreements Strengthen international relationships to better position primary sector exports Advocate for recognition of New Zealand's high primary production standards
Flexible regulatory systems	<ul style="list-style-type: none"> Modernise export legislation Overhaul the Biosecurity Act Review the animal welfare strategy Strengthen identification and management of risk in the food safety system

Productive

Action

Activities

Transformational Opportunities: Sustainable

Sustainable

Transform the forestry sector	<ul style="list-style-type: none"> Identify internationally competitive technologies, develop products and systems to better utilise wood by-products and enable a bio-economy Develop regional wood manufacturing clusters to support greater commercial scale and a more competitive and economically resilient wood products industry Create a Centre of Excellence for Timber Design
Refocusing tree planting and partnerships	<ul style="list-style-type: none"> Target investment to diversify commercial species, improve forest management to produce higher value timber and support appropriate afforestation of highly erodible land Lift Māori participation in the forestry sector and add value to unproductive land
Regenerative farming and establishment of Te Taiao	<ul style="list-style-type: none"> Investigate the use of regenerative farming to help meet our Te Taiao goals Develop a programme for realising Te Taiao across farming systems including pilot farm projects and science development
He Waka Eke Noa	<ul style="list-style-type: none"> Deliver nationwide farm-level reporting and pricing of emissions Work to recognise carbon stored within on-farm planting Develop a system for farmers to generate and record their emissions footprint
Freshwater and productive land	<ul style="list-style-type: none"> Implement new regulatory frameworks for improving water quality and management of productive land, including introducing mandatory freshwater farm environment plans Enable catchment groups and other “on-the-ground” collective groups to take action to improve the health of waterways

Other Opportunities: Sustainable

Fishing sector transition	<ul style="list-style-type: none"> Support the transition to new fishing methods that enhance environmental performance, create value and reduce unwanted catch Expand the roll out of on-board cameras
Business resilience	<ul style="list-style-type: none"> Develop guidance and support for businesses to adapt operating models and better manage supply chain disruptions Investigate renewable energy options on farm Support investment in transport projects to increase safety and access
Better data and decision support tools	<ul style="list-style-type: none"> Invest in systems, data and decision support tools to help land managers make better environmental and biosecurity choices

Other Opportunities: Inclusive

Inclusive

New Zealanders in jobs	<ul style="list-style-type: none"> Increase the attractiveness of the primary sector as a career pathway Match the skills of New Zealanders with the gaps in the primary sector workforce
Safe and healthy food	<ul style="list-style-type: none"> Support vulnerable communities with healthy food options Increase industry and public engagement activity related to food safety
Connect rural New Zealanders	<ul style="list-style-type: none"> Support improved digital infrastructure Bring together isolated or unsupported businesses with funding to support innovation
Thriving rural communities	<ul style="list-style-type: none"> Support rural communities through investment in Rural Support Trusts and the ongoing development of community hubs

New Zealand Natural Fibre – ZQrx Merino Fine Wool

- Start-up – 3-5 year market cap \$2 billion
- Employment – around 500 people
- Multi-million dollar contract with ZQrx Merino Fine Wool/ NZ Merino – 3 year supply contract and beyond
- Millions of dollars in premiums rewarding New Zealand growers
- Allbirds are carbon neutral
- Working with ZQrx Merino Fine Wool/NZ Merino to build new category integrating regenerative values with rewards

allbirds

ZQ^{RX}

Allbirds is an innovative footwear company grown out of Kiwi ingenuity, the attributes of a great New Zealand natural fibre and a focus on understanding the values of the consumer. Its focus on environmental sustainability and drive to minimise its carbon footprint align with where the New Zealand primary sectors are headed. Founded in 2015 by Tim Brown and Joey Zwillinger, it has grown into a global player. Allbirds showcases the great attributes of a New Zealand primary product and the sustainability story that sits behind the product, setting it apart from competitors.

- New Zealand producers partnering with an innovative new company with a focus on new ways of thinking to realise value
- Creating value via a focus on consumer centric design and taking that understanding all the way back behind the farm gate
- A story aligning New Zealand's reputation for sustainable ethically produced products with the values of consumers



Direct to Consumer High Value Marbled Grass-fed Beef

An integrated direct-to-consumer approach

July 2019 saw the completion of the Marbled Grass-fed Beef programme, a seven-year partnership between MPI, Firstlight Foods, Firstlight Wagyu NZ Ltd and Brownrigg Agriculture.

The programme developed a short, direct value chain to high-end retail and home consumers, in both local and offshore markets. New Zealand, the USA and the UK were selected to prototype a “Go Direct” model, putting boots on the ground in these key markets and capturing the margins usually taken by importers and distributors.

The model promotes positive production attributes associated with New Zealand’s pastoral farming systems (grass-fed, non-GMO, no antibiotics or added hormones) that are in demand from premium consumers in export markets. It focused on maintaining control of products (brand, messaging and price) from production through to the point of sale, delivering greater returns to New Zealand.

For its top tier of beef in the USA market, First Light have created the Steak Club – a monthly subscription service focused on high net worth

individuals. As a result of COVID-19, demand for this service has grown 10-fold as high-end consumers seek the surety and security of deliveries of premium meats to their door.

Improved value to New Zealand farmer suppliers

The approach provides a connection and visibility between the farmer and the consumer, and vice versa. In highlighting the attributes of New Zealand’s grass-fed based system it is delivering a unique and high-value product, with a focus on environmental sustainability and animal welfare. First Light was the first meat company in New Zealand to be verified by Certified Humane – an international, non-profit animal welfare organisation.

The focus on the consumer and shortening the value chain has seen First Light’s farmer suppliers benefit over the course of the programme with a consistent premium over standard beef returns.

- A focus on maintaining control of products from production through to the point of sale, delivering greater returns to New Zealand
- Connection and visibility between the farmer and the consumer has seen farmers benefit directly in higher prices for their products
- First Light’s success demonstrates the value consumers are prepared to place on safe, sustainable and ethically produced product from New Zealand’s pastoral systems



Regenerative farming at Rehoboth Farm

“We are working with the soil and nature and it is less about extraction but more giving back in a circular system.”

“We have four principles that we farm by: no bare soil which can be exposed to rain, sun and wind; live roots in the soil; diversity of pastures species; and longer pastures for the animals to graze through a rotational grazing plan.”

“We are now on an awesome journey regenerating our soil, livestock, and profitability.”

For the past five years, Hamish and Amy Bielski have been farming a joint venture on 300 hectares in South Otago. The land consists of gentle rolling hills and steeper gullies that bound the Pomahaka River. They ran an integrated sheep, beef and arable operation for the initial years. More recently they have adopted regenerative farming practices. They have decided to run 2,300 breeding sheep, 200 trading cattle and no longer grow crops.

Hamish and Amy now have two mobs of sheep from docking onwards, using a precisely planned rotational grazing system. They shift the mobs of sheep two to four times per day, and do not return to graze the paddock until the plants have fully recovered to a green leafy state. The aim is to maximise both animal performance and the pasture growth rate, building resilience into the land to help get through Otago’s hot, dry summers.

Animals are kept in tight mobs to give a higher density when grazing each paddock. This system allows the animals to lay down more litter, which protects the soil, filters water and distributes dung and urine evenly. The farm is now growing 30 percent more feed by changing grazing management.

Instead of growing a single winter crop of pastures they now plant up to eight species with some perennials that regrow after grazing. This helps to keep the soil together and maintain the nutrients in the soil profile. They also add flowering plants to promote beneficial insects into the paddocks to remove the need to spray for pest insects.

They used to cultivate soil but now spray with glyphosate (mixed with fish and fulvic acid to reduce the rate) and direct drill. There is no soil disturbance and the soil is kept covered.



The New Zealand Greenshell Mussel Industry and SPATnz Programme

The SPATnz Programme has developed methods to produce Greenshell™ mussel spat at commercial scale, and is selectively breeding strains with enhanced performance. These spat are being used commercially to improve the profitability and resilience of mussel farming in New Zealand.

Late in 2019, Nelson-based Greenshell mussel company, SPATnz, publicly released the results of its seven-year breeding programme which was developed in partnership with Sanford, MPI and the Cawthron Institute. The results show that selected hatchery mussels can grow up to twice as fast as those caught in the wild. This work is expected to be worth around \$200 million a year to the wider New Zealand economy.

The final results from this programme have exceeded all expectations. Growth rates for mussel spat from the SPATnz hatchery were compared with those collected in the wild from Golden Bay and Kaitaia. The trials show the SPATnz mussels reached market size nearly a year faster, with SPATnz Greenshell mussels taking on average 16.7 months to grow from seed to harvest size, compared to 28.3 months for the weighted average of the wild caught varieties.

The hatchery also produces a reliable, year-round supply of mussel spat to mussel farms. Wild caught spat can be highly variable, and hatchery raised spat will help improve the value and resilience of the Greenshell mussel industry.

MPI invested in SPATnz as it has the potential to be a real game-changer for New Zealand's Greenshell mussel industry, delivering benefits for mussel farmers, our economy and the environment.

As well as faster growth, SPATnz and Cawthron are focusing on other characteristics that selective breeding can encourage, such as better mussel condition, as well as looking at enhancing the renowned anti-inflammatory qualities of Greenshell mussels. With mussel powder and oil highly sought after on global markets, there is potential for growth.

The SPATnz mussel breeding programme will also help to mitigate the impact of climate change on New Zealand's aquaculture sector. Compared to other forms of animal protein, shellfish have a very light touch on the environment. Careful, selective breeding can help future-proof New Zealand's mussel industry against threats like ocean acidification, global warming and disease.

The New Zealand Government has a goal for the aquaculture sector to be worth \$3 billion in annual sales, and the mussels produced by SPATnz are a great stepping stone in contributing towards that target. The future looks bright and programme partners are already looking towards a growth plan and expansion of current hatchery facilities.



Transforming the Dairy Value Chain

The programme delivered a number of important initiatives to help:

- **boost industry resilience and expertise**
- **reduce impacts on the environment**
- **cultivate new value-add products**
- **foster the next generation of primary sector superstars**



Transforming the Dairy Value Chain (TDVC) was a collaborative programme between primary industry organisations and MPI that wrapped up in 2018. TDVC was instrumental in bringing diverse organisations together to deliver on the common goal of transforming New Zealand’s dairy industry. It has helped New Zealand research and development compete against some of the world’s largest countries and corporations.

TDVC enabled partners to collaborate with some of the world’s best food and dairy scientists to create new products and processing systems. For example, it accelerated the science and innovation needed to produce high quality, Individually Quick Frozen (IQF) mozzarella cheese in six hours, rather than the traditional three months. At the time of the programme, this advance meant that Fonterra could produce enough mozzarella to cover 300 million pizzas a year and gave the organisation the confidence to expand its Clondeboye processing site in South Canterbury, creating further local jobs.

Another innovation to come from this programme is “milk-fingerprinting”, which won a national award for innovation. It

allows inexpensive, fast data collection and analysis of milk production that helps Fonterra to direct more of its farmers’ milk into premium value products, by better aligning farm supply with certain products and factories.

Advances in science and research through TDVC also played a key role in the development of sturdier new creams that are better equipped to handle temperature and supply-chain variations.

Without TDVC, this collaboration and its resulting benefits would not have been possible. An independent evaluation concluded that the programme was worth the effort and money. It broke new ground for New Zealand by demanding a level of collaboration not previously seen across industry, government and academia.

The evaluation expects overall economic benefits from TDVC in the region of \$1.86 billion, along with significant financial benefits in the areas of food safety and quality and paediatric health. Stakeholders believe it set the dairy industry up for long-term sustainability.

Partnering with Māori to deliver improved jobs and environmental benefits

Nursery expansion – Bay of Plenty

Minginui Nursery is owned by Ngāti Whare Holdings. The nursery trains and employs locals to grow forest grade podocarp species such as rimu and tōtara. Ngāti Whare has developed a successful approach for transitioning locals into full-time employment, using the nursery as a hub to develop skills and experience.

The nursery has received partnership co-funding of \$5.8 million through the One Billion Trees Fund. This has allowed it to expand seedling production to one million seedlings annually, and is expected to directly and indirectly create approximately 90 new jobs for locals.

Boosting the nursery's operations provides a catalyst for positive economic and social change in an area of historic deprivation.

Total funding investment:

- \$5.8m over three years

Key achievements:

- Approximately 1,000,000 seedlings prepared for the 2020 planting season
- The nursery employs 15 permanent and 21 seasonal workers

Fund investment enabling activities supported as a result of the partnership:

- Labour/workforce development
- Seedling production





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