



MINISTRY OF AGRICULTURE AND FORESTRY

BRIEFING FOR INCOMING MINISTERS

NOVEMBER 2008



DIRECTOR-GENERAL'S OVERVIEW

This document is intended as a high level introduction to MAF, its roles and responsibilities and the key issues currently faced within that suite of activities.

MAF is a very busy Ministry, with diverse and challenging roles. We operate under two separate Votes, potentially four or more portfolios, and conduct a good deal of “off balance sheet” or non-departmental business. There are significant cash flows through MAF’s accounts that are destined for activities and entities outside of MAF. There is a significant degree of MAF activity funded via cost recovery, especially under Vote: Biosecurity. We run a substantial forestry operation (approximately \$100 million pa turnover) within the Ministry on an essentially commercial basis.

We sit at the nexus of many different work streams across government and industry: the border sector, international trade, sustainability/natural resource use/biodiversity, economic growth and innovation, research, science and technology and law enforcement, to name a few. For that reason, our capacity to work collaboratively – with other government agencies, local and regional government, private sector, iwi and sector representatives – is a core competency for the Ministry. This is becoming increasingly important to us.

Our stakeholders are many and varied. Indeed, developments in recent years have taken MAF well beyond its traditional set of stakeholder relationships centred on the land-based primary industries. Increasingly, our stakeholders may be urban based and/or more strongly focused on environmental, social or cultural outcomes than on the financial success of land-based primary industries.

For all of that, MAF retains a strong economic and trade orientation across all its functions. In many respects, the activities we are mandated to carry out, be they related to biosecurity or primary production, have at their core the concept of managing risks associated with shifting biological products across international borders, either in or out of New Zealand. For that reason, we remain very close to the agencies that shape the international rules of trade – the World Trade Organization, World Organization for Animal Health, International Plant Protection Convention and Codex Alimentarius. We regard it as crucial that we both understand the international trading environment, and are able to engage effectively in the shaping of the international trading environment.

We aim to bring high quality economic and scientific analysis to our policy advice and regulatory work. Moreover, our approach to the application of economic and scientific method in our work is one that is deeply concerned about bringing the full range of interests – financial, economic, environmental, social and cultural – into our analytical frameworks in ways which leave transparent just how those various interests have been assessed and weighted in the process of formulating advice.

We describe MAF as a leading sustainable development agency and regard that orientation as particularly important. In using the term “sustainable development”, we have in mind sustainability across the full range of elements referred to above – financial, economic, environmental, social and cultural.

Inevitably, we are required to prioritise our work, and much of our policy thinking and advice is centred on how to make the most of available resources. In particular, the hard questions relate to deciding what should not be done in order to create space for higher priority activities. In the biosecurity portfolio, our approach to that challenge has been to try and build closer understandings with key stakeholders that draw them into both the decision making about biosecurity priorities, and the funding of those priorities. With that comes a stronger shared sense of what really matters and a stronger sense of ownership of the agreed priorities.

Over the past few years there has been a renewed acknowledgement of the importance of our primary industries as drivers of New Zealand’s economic well-being. It is important to understand that the success of

primary industries is not due to innately favourable climate or soils. Rather, it is fundamentally a product of the human capital committed to primary industries – on farm/in forest, in processing, and in supply chains – together with decades of investment in highly productive science.

Only in our primary industries do we have businesses with something approaching credible international scale, the necessary accumulation of human capital and unique intellectual property, and well developed supply chains capable of servicing the needs of customers in markets around the world.

Sustaining that position of comparative and competitive advantage will not come easily. To do so, we need to make some critical transitions over the next decade or so. These transitions include the following elements:

- › A shift from what are fundamentally production-driven industries to industries driven from a deep understanding of customer needs and expectations.
- › An evolution of our co-operative-based industry structures that enables those industries to develop vibrant growth strategies and to support those strategies with the large scale investments necessary to hold and expand market positions globally.
- › A strong focus on innovation and productivity throughout the entire value chain from farm/forest to customer. Research and development spending will be a key part of that, but just as important will be the mechanisms that enable research and development to be taken up and applied by the industries at every point in the supply chain.
- › Building sustainability – broadly defined – into our production, processing and distribution systems as an essential and integral component of future market success.
- › Enhancing the systems that protect our indigenous biodiversity and productive sectors from biosecurity risks associated with ever-increasing trade and travel.
- › Responding to increasing societal demands for the humane treatment of animals and higher standards of animal welfare.
- › A shared understanding that issues of trust, integrity and confidence in our industries on the part of our customers, here and abroad, is essential to future success. That means delivering on matters of environmental sustainability, biosecurity, animal welfare, reduced greenhouse gas and water footprints, soil conservation, efficient energy use and food safety of demonstrably high quality.
- › Water is a fundamental issue for our nation and especially for our primary industries. We must be able to demonstrate progress in lessening the impact of farming on the quality of water in our lakes, rivers and streams. Moreover, in an increasingly water constrained world, we must, as a matter of some urgency, make progress on the development of a robust and efficient water allocation framework.
- › Climate change presents us with real challenges, especially with respect to methane in pastoral agricultural sectors, and real opportunities in both agriculture and forestry. The gulf in thinking and analysis between the Government and our primary industries on the best way forward for New Zealand's response to its climate change obligations is very large. We will not be able to make progress in implementing that response without closing those gaps.

MAF has programmes of work in each of these policy areas.

Organisationally, MAF has been through a very high degree of change over the past couple of decades. We are an agency of around 1200 full time equivalents, of which around 900 are engaged in biosecurity, and 135 in agriculture, forestry, trade, innovation, resource use and related policy issues. The remainder are engaged in providing organisational infrastructure and support activities, including shared service arrangements in some functions (finance, payroll, information technology) for the New Zealand Food Safety Authority.

A great deal of work has been committed over recent years to building robust underlying systems, processes and integrity. This work has included investments in people, training, and core information technology and related systems. While that work is certainly not complete – there are areas we believe require further investment – MAF is essentially “sound and fit for purpose” in its capability at this point.



M A Sherwin
Director-General

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OUR OPERATING ENVIRONMENT

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“...our economy, people and environment depend on the success of our land-based industries, the conservation of our unique native species and the biosecurity system...”

New Zealand’s indigenous flora and fauna are precious and a core part of our natural heritage and culture. The social and economic wellbeing of New Zealanders is also inextricably tied to a biological economy based on introduced plants and animals. More than any other developed country, our economy, people and environment depend on the success of our land-based industries, the conservation of our unique native species and the biosecurity system that underpins them both.

The agriculture, food and forestry industries are the core of our economy, major determinants of our employment and social wellbeing and key drivers of our land, water and biological resource use. These industries generate 64 percent of New Zealand’s merchandise export earnings. They are the only major industries in which we have sufficient scale, market share and supply chains to be truly competitive in international trade. New Zealand is the world’s largest dairy and sheep meat exporter, and has some of the world’s most competitive horticultural and forestry industries.

Over the next 20 years, New Zealand’s food and fibre producing capability will become increasingly important. Globally, rising population and economic growth is expected to increase demand for agricultural and forestry products. At the same time land and resources, such as freshwater, available for food and fibre production worldwide is likely to decline.

Despite this favourable long-term outlook for New Zealand’s primary production sectors, our industries, environment and broader society face a complex set of challenges to reap future opportunities. These challenges are exacerbated by the current global financial crisis that continues to unfold with uncertain impacts and duration.

The challenges facing the sectors can be broadly grouped into themes of environmental sustainability, productivity and innovation, and the integrity of New Zealand’s environment and our reputation as a safe, trusted and ethical producer. The key issues within these themes are:

FINANCIAL AND MARKET CONTEXT

ENVIRONMENTAL SUSTAINABILITY

› water › soil › climate change

PRODUCTIVITY AND INNOVATION

› productivity › innovation › rural affairs

NEW ZEALAND’S REPUTATION AND INTEGRITY

› biosecurity › product traceability, safety and integrity › animal welfare

INTERNATIONAL TRADE AND ENVIRONMENT

“...a global economic slowdown triggered by the “credit crunch” is likely to reduce demand for New Zealand’s primary products...”

»» FINANCIAL AND MARKET CONTEXT

The potential implications of the current global financial crisis across the primary sectors are of concern, and are also uncertain. It is likely that the crisis will impact upon the lending available to New Zealand industries. Access to international funding for domestic financial institutions may become more limited, as New Zealand bank lending policies are revised, and as investor sentiment for investment in New Zealand corporate bonds and shares deteriorates.

In addition, a global economic slowdown triggered by the “credit crunch” is likely to reduce demand for New Zealand’s primary products and will reduce export revenue in outyears. The current crisis exacerbates recent poor performance in some sectors.

The following section briefly indicates likely impacts of the crisis on the primary sectors, taking into account existing market conditions. We will be reporting on the fuller impact of the financial crisis in more detail in departmental briefings.

› REDUCED DEMAND FOR EXPORTS

- › It is likely there will be reduced demand from oil producing nations and emerging Asian economies for our dairy products. About 40 percent of dairy products are exported to these nations. Dairy prices have been falling rapidly along with prices for other commodities (against historically high peaks).
- › Demand for New Zealand lamb, a premium product, is likely to fall as consumers turn to cheaper substitutes. Conversely, demand for beef is expected to remain strong as consumers switch to lower cost ground beef.
- › New Zealand kiwifruit, which sells at a premium 40 to 100 percent higher than other kiwifruit, faces a potential threat from cheaper substitutes. This is against a background of four years of low returns and slowing demand. Horticultural exporters who typically rely heavily on seasonal finance will be further impacted by the increasing cost of credit.
- › Exports of pipfruit are largely reliant on markets in the European Union and likely to face reduced demand and a shift from premium varieties to lower priced products.
- › International demand for new housing has decreased, resulting in a reduction in wood panel and sawn timber exports. Wool prices are likely to remain low as new housing is the biggest market for wool carpets.
- › There are likely to be reduced volumes and prices for pulp and paper exports due to the decline in sawn timber production from slower housing markets.
- › A reduction in demand for New Zealand’s export products is being mitigated by the depreciation in the New Zealand dollar. The New Zealand dollar went from 82 cents to the US dollar at the end of February 2008, to 58 cents at the end of October 2008 – a 28 percent depreciation in eight months. This is the largest eight month fall since the New Zealand dollar was floated. At the same time, falls against the Euro have been less and there has been some appreciation against the Australian dollar.

“...increasing levels of farm indebtedness and vulnerability to increasing financing costs, particularly for dairy farmers, and lower commodity prices, especially for sheep and beef farmers.”

➤ DIFFICULTY OBTAINING AND SERVICING DEBT

Recent years have seen increasing levels of farm indebtedness and vulnerability to increasing financing costs, particularly for dairy farmers, and lower commodity prices, especially for sheep and beef farmers. Therefore any recession is of concern. It is likely there will be fluctuations in income levels and less ability for farming businesses to obtain and service debt financing. Added to this is the much tighter credit environment that has emerged following the global financial crisis. The combination of these two factors may lead to:

- › Tighter rural lending policies that could impact investment in the agriculture and forestry sector and the ability of businesses to refinance existing debt.
- › Reduced availability of trade credit in key markets potentially leading to reduced demand.
- › Reduced access to capital and loan financing for acquisitions or new businesses in the sector.
- › A higher likelihood of some producers, processors and agribusinesses becoming financially distressed and either reducing operations, going out of business, or being acquired by new owners.
- › Difficulties in the wood processing industry (particularly sawmilling) have been accelerated. Sales have further decreased and credit is less available. In the short-term there may be significant impacts on individual businesses, employees and communities.

➤➤ INTERNATIONAL TRADE AND ENVIRONMENT

For a small country lacking significant economic power, legally-binding multilateral trade and environmental management rules are important to achieve economic and environmental benefits not available by other means. By contrast, economic liberalisation or environmental action by one to two nations is relatively easy to achieve, but the size of the benefits is small in world terms.

Internationally, the sectors face a number of longer-term trade issues, including protectionist tendencies, and long-run demand for food and raw materials rising faster than supply. There is considerable potential for improved market access and prices for New Zealand’s agricultural and forestry products from the development of multilateral and (to a lesser extent) bilateral Free Trade Agreements. The exporting landscape is a mix of affluent, well-developed and often static markets and developing markets where growth has been strongest.

Access to international markets depends on New Zealand’s ability to provide assurance that our products are sourced from disease free plants and animals, safe for consumption and of high quality. To maintain market access New Zealand relies heavily on both objective rules-based trade, and biosecurity to maintain plant and animal health status.

These considerations guide New Zealand’s policy priorities and result in the World Trade Organization, the UN Framework Convention on Climate Change and other multilateral instruments being given a very high priority.

“New Zealand aims to develop a network of Free Trade Agreements across Asia – these are particularly important as these are growing markets for agricultural products...”

However, the Doha World Trade Organization round has stalled. This has put an even greater focus on New Zealand moving ahead with bilateral and multilateral Free Trade Agreements. The Free Trade Agreement with China (in force in 2008) will result in declining tariff rates for New Zealand agricultural exports in a steadily growing market. New Zealand producers who no longer face tariffs (or have the prospect of reducing tariffs) have a critical advantage over competitors who still face Chinese tariffs.

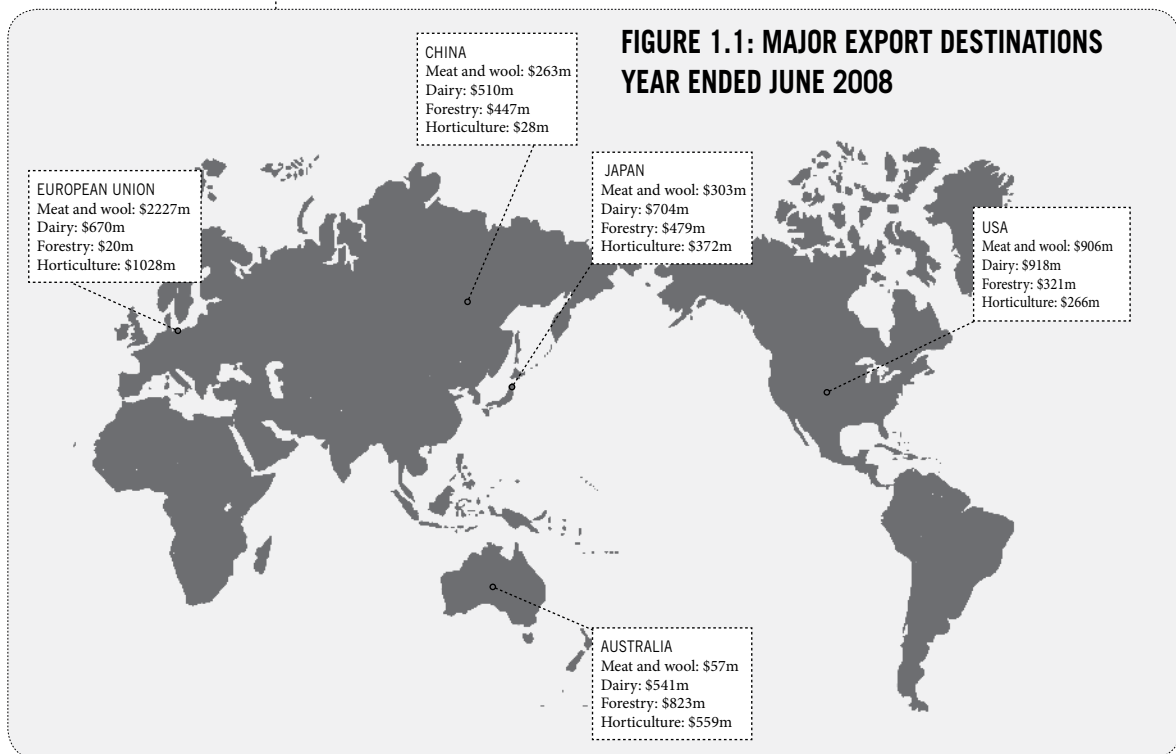
Negotiations are underway for a Free Trade Agreement with the Gulf Cooperation Council. The ASEAN/Australia/New Zealand Free Trade Agreement was substantially concluded in August. A Free Trade Agreement with South Korea is currently in pre-negotiations, and New Zealand and Japan have established a working group to examine a Free Trade Agreement. Recently, the United States agreed to join negotiations with the Trans-Pacific Economic Partnership (“P4” – Brunei, Chile, New Zealand and Singapore). Negotiations with Malaysia have resumed after a long hiatus. A joint study with India has almost been concluded, with pre-negotiations towards a Free Trade Agreement likely in 2009.

New Zealand aims to develop a network of Free Trade Agreements across Asia, these are particularly important as these are growing markets for agricultural products, and in general with all our major trading partners.

Environmental governance at the global scale is also increasing through international agreements – for example, the Convention on Biological Diversity, which provides for the conservation and sustainable use of the world’s biological diversity. This creates benefits but also poses potential risks for New Zealand. Multilateral environmental agreements provide a new opportunity for others to pursue protectionist agendas that were never part of the original conception.

Arguably, the most important multilateral environmental agreement is the UN Framework Convention on Climate Change, and its subsidiary agreement the Kyoto Protocol. New Zealand has been a major contributor to the development of the rules and approaches under the Framework Convention. MAF currently participates heavily, and leads thinking, in the New Zealand delegation’s negotiating rules for agriculture and forestry and we have world-leading expertise in some areas.

New Zealand is also very active in promoting work to reduce illegal logging, including within the UN Forum on Forests and the International Tropical Timber Organization. Reductions in illegal logging benefits the global environment by reducing emissions from deforestation and maintaining significant carbon sinks, while potentially providing price benefits for the sustainably-harvested plantation timber New Zealand produces.



“...protecting the natural, social and cultural capital that underpins our production systems and our national identity.”

»» ENVIRONMENTAL SUSTAINABILITY

Sustainable agricultural and forestry provides both monetary and non-monetary benefits that are important to New Zealanders. It also provides for future generations by protecting the natural, social and cultural capital that underpins our production systems and our national identity. Sustainable development aligns closely with Māori views of resource management embodied in the concept of *kaitiakitanga*¹.

Social and cultural expectations of the sectors are changing, particularly with respect to the use of environmental services and impacts on the environment (for example, water, nutrient and waste discharges, and greenhouse gas emissions). Increasingly, society is demanding, and good economic practice suggests, that external impacts should be internalised into decision-making and financial accounting. However, when externalities are negative and costly, as sometimes seen with pastoral farming and impacts on water, there can be resistance to internalising the impacts. On the other hand, when externalities are positive and profitable, as with forestry and sequestration of carbon, landowners assert ownership of the externalities almost as of right.

In general terms, regulatory interventions and market-based incentives are being progressively introduced. As a result, producer decision-making is increasingly taking consumer preferences and environmental impacts into account. However, in some areas, resource use has reached the limits acceptable to many New Zealanders and to what the environment can cope with. In

¹ Kaitiakitanga can be defined as “guardianship”. This is a narrow definition, which includes the concept of ensuring the sustainability or long-term survival of resources.

“...water resources have either been over-allocated or are close to being fully allocated.”

particular some intensive pastoral systems have pushed surrounding water bodies past their limits to absorb environmental impacts.

The challenge is to develop integrated policies that provide incentives for the sectors to work towards a more sustainable balance in economic, environmental, social and cultural outcomes for the benefit of all New Zealanders. As resources become fully allocated and ecosystems reach the limits of what they can deal with, there are increasingly difficult decisions needing to be made that will impact on the practices of primary producers.

The Sustainable Farming Fund was established to provide seed funding to assist with bridging the gaps in the extension of research into farm and forest businesses. The fund awards \$9.5 million a year in addition to the \$2.25 million available from the Climate Change Technology Transfer Fund. The Sustainable Farming Fund allows farmers, growers and foresters to try new approaches, involve the community, and demonstrate how initiatives work. It also recognises that farmers and growers are often the source of new ideas and this can help inform policy.

► WATER – AVAILABILITY BECOMING A PRESSING ISSUE

Freshwater faces significant policy challenges over the next few years and the water “footprint” of our exports will come under increasing consumer scrutiny. The primary sector is heavily dependent on a continued supply of fresh water, especially in the east coast of the South Island where many land uses (such as dairying) cannot occur without irrigation. The agricultural sector uses around 80 percent of all water allocated in New Zealand, mostly for irrigation. However, availability of freshwater is becoming a pressing issue. In some regions, water resources have either been over-allocated or are close to being fully allocated.

The agriculture sector also generates some of the biggest environmental impacts on water, mainly through nutrients leaching into water-bodies. Freshwater quality, particularly in groundwater and rural lowland water-bodies, is declining and below acceptable standards in some areas. Water quality in some of our major catchments will get worse before it gets better, even with significant intervention – a trend driven mostly by land use intensification. The costs of repairing this deterioration can be very high. Therefore, improving water management by the primary sector (both in terms of quantity and quality) is imperative and an urgent priority.

In 2002/03, irrigation was estimated to contribute around \$920 million net GDP “at the farm gate”, over and above that which would have been produced from the same land without irrigation. Since then, the area of irrigated agriculture and horticulture has increased by about 25 percent, from 480 000 hectares to around 600 000 hectares.

“...the Community Irrigation Fund has been established to assist developers to raise investor and community support for water storage and irrigation schemes.”

Theoretically there is a further 1.9 million hectares of land capable of being irrigated. However, most of the recent increase in irrigation is sourced from groundwater, which has generally reached or is quickly approaching allocation limits in most parts of the country. Further irrigation development, particularly on the eastern side of New Zealand as climate change impacts, will require water storage and distribution systems to deal with fluctuating water availability. Currently only about four percent of all the freshwater that flows toward the sea is extracted. In Canterbury, where most irrigation occurs, just one percent of allocated water comes from storage infrastructure.

Storage infrastructure provides the scope to better allocate water among competing uses. Water can be held and released to maintain ecological flows and ensure more reliable availability. However, the intensive agriculture that results from more irrigation can, if not carefully managed, also have potentially high impacts on water quality.

To progress greater use of water storage the current system of scheme development, allocation of water, management of effects and governance of the whole system needs to be better integrated. MAF considers that the development of water infrastructure holds the key to integrated and sustainable water management in many parts of New Zealand. But further development needs to go hand in hand with effective policies to mitigate the potential adverse effects from more intensive agriculture.

As a way of adapting to climate change, the Community Irrigation Fund has been established to assist developers to raise investor and community support for water storage and irrigation schemes. In addition, MAF works in partnership with the primary sector on environmental performance especially with respect to water (for example, the Dairying and Clean Streams Accord and the Primary Sector Water Partnership).

The key priorities for further work are:

- › scoping and progressing the use of regulatory and market-based instruments by regional councils and unitary authorities for re-allocating water permits in catchments that are near, or at, full allocation;
- › scoping and progressing options to enable the trading and/or transfer of water permits between permit-holders;
- › identifying impediments to the planning and development of water storage solutions; and
- › encouraging the uptake of tools and practices to reduce farm discharges on waterbodies.

Engagement with Māori on the Sustainable Water Programme of Action raised a range of concerns, some of which, such as water quality, can be addressed within current work programmes. Other concerns are more challenging with implications wider than freshwater management (for example, customary and

Treaty of Waitangi rights).

The recent settlement of the Waikato-Tainui Treaty claim regarding the Waikato River has an emphasis on co-management to restore the wellbeing of the river. This settlement has potentially significant implications, opportunities and precedent effects for the management of freshwater and land use practices that impact on water quality.

In summary, New Zealand risks squandering one of its key competitive advantages if the current water allocation regime, the limited development of water storage solutions and the deterioration of rural water quality continue. Efforts to address these issues effectively will involve an intensive and ongoing engagement with the community, and, in particular, the farming sector.

► SOILS – ACCELERATING THE PROTECTION OF OUR LAND

Cyclone Bola in 1988 and the Lower North Island floods of 2004 reignited awareness of the need to protect land at severe risk of erosion, ensure communities in these catchments are resilient, and minimise the future cost of recovery spending. Despite more than 70 years of government and community efforts, hill country erosion still affects 1.2 million hectares of land, of which 768 000 hectares is pastoral land in the North Island. Most South Island hill country erosion is considered natural.

MAF has a leadership role and is working in partnership with regional government to accelerate the rate of protection of erosion-prone land. The programme incorporates the Hill Country Erosion Fund, the East Coast Forestry Project, the development of catchment partnerships and capacity-building work with regional councils. Engagement with regional government has already resulted in a shift in its focus and resources towards the land with the most severe erosion risk.

The Crown has part-funded (\$5.9 million) Horizons Regional Council for its Sustainable Land Use Initiative and has proposals being finalised with Greater Wellington Regional Council and Hawkes Bay Regional Council with a total value of \$3 million.

Other soil related issues include superphosphate, which is a major driver of agricultural productivity in New Zealand because soils are naturally low in phosphate. The amount of superphosphate applied between 2001/02 and 2006/07 declined by 26 percent on hill country pastures. Since June 2004, the cost of applying superphosphate has risen by 185 percent. This will have significant productivity and profitability impacts on hill country sheep and beef farming. New Zealand's long-term phosphate supply is also at risk with 95 percent of phosphate rock provided from one source in the geopolitically unstable region of sub-Saharan West Africa. Over the coming year MAF intends to engage industry in a dialogue on addressing the risks associated with superphosphate supply.

“The Crown has part-funded Horizons Regional Council for its Sustainable Land Use Initiative and has proposals being finalised with Greater Wellington Regional Council and Hawkes Bay Regional Council ...”

Superphosphate is the main source of increasing cadmium levels in New Zealand's agricultural soils, which at higher levels is toxic to both animals and people. A recent risk analysis report by a multi-sectoral Cadmium Working Group facilitated by MAF concluded that while not of immediate concern, the issue needs to be addressed now to limit future concerns for human health, trade and residential development.

› CLIMATE CHANGE – NEW ZEALAND'S RESPONSE TO A GLOBAL ISSUE

Climate change will result in significant changes for New Zealand, in particular drier conditions in the east, and a greater frequency of droughts. More frequent and severe extreme weather events are also likely, resulting in costly flooding and erosion. This requires agriculture and forestry to adapt and build greater resilience.

Greenhouse gases from agriculture contribute 48 percent of New Zealand's total emissions. The principal source of greenhouse gas emissions from agriculture is methane from ruminant livestock. Currently there are no methods available to significantly mitigate methane emissions from livestock, other than to reduce stock numbers, although productivity improvements are incrementally reducing the amount of gas produced per unit of output. The second most significant greenhouse gas from agriculture is nitrous oxide, mostly arising from animal urine, dung and urea fertiliser. Nitrous oxide can be somewhat reduced through management practices and technology, which can also have benefits for farm productivity and water quality.

In recognition of the importance of climate change to the agriculture and forestry sectors, MAF has taken on increased responsibilities in the broader climate change area. MAF is also a key source of advice to government on policy responses to New Zealand's obligations to reduce emissions, including those of agriculture and forestry, under the UN Framework Convention on Climate Change and its Kyoto Protocol. MAF administers the forestry components of the Climate Change Response (Emissions Trading and Renewable Preference) Act.

While actions in New Zealand will themselves have little impact on global climate trends, market drivers indicate that the agriculture and forestry sectors need to act now. International markets are already demanding that environmental sustainability credentials are proven, such as through greenhouse labelling and certification to measure carbon emissions throughout the supply chain. It is vitally important New Zealand actively engages in the development of international emissions "footprinting" methods to ensure rules are fair and scientifically robust.

International climate change frameworks and institutions have the potential to significantly impact on the primary sectors and their overseas markets. It is,

“International climate change frameworks and institutions have the potential to significantly impact on the primary sectors and their overseas markets.”

therefore, of considerable strategic importance that New Zealand is both engaged, and sufficiently credible in its domestic policy settings, to influence international responses to climate change. New Zealand agriculture and forestry must be, and must be seen to be, part of the solution rather than the problem.

Emissions Trading Scheme

By 2010 New Zealand's agricultural emissions are projected to have increased by 22 percent compared to 1990 levels. Under New Zealand's Kyoto Protocol commitments this increase in emissions is forecast to cost \$900 million (assuming \$25 per tonne of CO₂ equivalent) over the first commitment period of 2008 to 2012.

The Climate Change Response (Emissions Trading and Renewable Preference) Act provides for this cost to be met by the New Zealand taxpayer. However, the Act is predicated on New Zealand having further and more onerous obligations in future commitment periods beyond 2012. As such, the Act imposes an obligation on the agricultural sector to meet the cost of emissions over 90% of its historical 2005 emission levels from 2013 until 2018. In principle the Act envisages that the agricultural sector will progressively increase its responsibility for its total share of emissions from 2018 onwards as the global economy moves toward carbon being fully priced into economic activity.

However, it is important to note that New Zealand does not actually have any international binding commitments beyond 2012 and there is considerable uncertainty as to what further commitments might entail. As such a number of decisions about the Emissions Trading Scheme for agriculture need to be confirmed, and others are yet to be made. This will be outlined in further briefings.

The price signals arising from the Emissions Trading Scheme can be expected to encourage responses, both "on and off the farm", including incentivising greater research and development efforts. However, the Emissions Trading Scheme also has the potential to significantly impact on the international competitiveness of New Zealand agriculture by imposing a cost on production that is not faced by international competitors.

Importantly the Emissions Trading Scheme legislation provides a reasonably long transition for agriculture, as well as periodic reviews of the obligations faced by agriculture to ensure the costs do not place at risk New Zealand's competitiveness and simply shift production to other countries. The international architecture responding to climate change is highly dynamic and uncertain. The challenge for New Zealand is to retain flexibility in our domestic response to cope with this dynamism without fuelling unnecessary and unhelpful uncertainty for investment.

"The price signals arising from the Emissions Trading Scheme can be expected to encourage responses, both 'on and off the farm'..."

“The Peak Group has an important role in the development of the policy and operational response to climate change, and will have an increasingly important role in leading engagement with the agricultural and forestry sectors”

The Emissions Trading Scheme also creates opportunities for forest owners to receive income for the carbon sequestration services their post-1989 forests provide. However, owners of pre-1990 forests face costs if they choose to change to land use which results in increased emissions, even if they plant new forests on other land. New Zealand has been seeking amendment to international climate change rules to provide for offsetting of land use change.

MAF administers a number of forestry-related programmes including the new Afforestation Grants Scheme designed to encourage more planting of trees in small forests and on farms, with initial funding of \$50 million over six years. Other forestry-related programmes include existing schemes for indigenous forestry and the East Coast Forestry Project, and new schemes such as the Permanent Forest Sinks Initiative.

Sustainable Land Management and Climate Change Plan of Action

MAF leads the Government’s Sustainable Land Management and Climate Change Plan of Action that underpins the primary sector’s response to climate change. The five-year, \$175 million plan is overseen by a Peak Group, comprising key industry leaders and chaired by the Director-General of MAF. The Peak Group has an important role in the development of the policy and operational response to climate change, and will have an increasingly important role in leading engagement with the agricultural and forestry sectors.

The Sustainable Land Management and Climate Change Plan includes a comprehensive programme of research into methane and nitrous oxide emissions, technology transfer of new tools and practices to reduce emissions and adapt to changes in climate, and the \$50 million Afforestation Grants Scheme.

Resilience to Adverse Events

For farm and forestry businesses to remain profitable in the long-term, they must be resilient enough to withstand the impact of short-term adverse events, such as major weather and biosecurity incidents, and adapt to long-term climate change.

Current adverse event policies are designed to ensure landowners are aware of climatic, weather and other natural disaster risks, and develop flexible management systems to take this into account; as well as to ensure a co-ordinated response and recovery programme after adverse events.

MAF’s role is to provide advice on whether the scale and severity of an event affecting the agriculture and forestry sectors is such that government assistance is required, and to co-ordinate the Government response to the agriculture and forestry sectors.

Government assistance is scaled in line with the severity of the event and is targeted at supporting the families involved rather than taking on the business

“...productivity increases result from the use of our natural resources, including genetics, and the generation of new ideas through research...”

risk. A network of rural trusts is being established to work with civil defence and emergency management groups to respond to adverse events.

»» PRODUCTIVITY AND INNOVATION

Despite being further from markets than any other major agricultural producer, New Zealand has successfully built highly competitive and efficient primary production systems exporting to virtually every corner of the globe. Much of this success is owed to world-leading innovation and deployment of cutting edge technologies and practices in the field. However, over the last two decades some of New Zealand’s capability in research, innovation and extension has declined and many of our international competitors have dramatically improved their performance.

Global demand and supply forecasts suggest real opportunities for New Zealand in the years ahead. Grasping these will require a step change in the productivity of the sectors, in the science and technology that drives innovation, and in the strength of the rural communities that support and underpin primary production.

» PRODUCTIVITY – STRONG GAINS NEED TO BE MAINTAINED

Over the past 25 years, productivity in the primary sectors has grown strongly. MAF estimates the agriculture sector’s total productivity has increased by an annual compound growth rate of 3.3 percent, and forestry’s by 1.6 percent from 1984 to 2007, compared with the wider economy’s annual compound productivity growth of one percent.

These productivity increases result from the use of our natural resources, including genetics, and the generation of new ideas through research and innovation. In addition, the response of businesses and their supply chain management to continually changing trading environments is critical. In this context, MAF’s role is to work with government agencies and the sectors to maintain and enhance the business environment, ensuring ongoing capability development (for example, skills and resilience to adverse events), identifying and investing in areas of new opportunity, and supporting innovation through research, development and extension.

MAF has a number of statutory roles which balance the need to encourage the development of internationally-competitive industry and value chains with the protection of the domestic market from anti-competitive behaviour. MAF carries out these roles in partnership with the sectors, promoting a two-way flow of information. This helps to increase knowledge within both Government and the sectors, leading to more informed decision making.

Human Capital

Shortages of human capital exist at many levels in the agriculture and forestry sectors – from skilled and unskilled labour to managers with operational and

“Substantial capital investment is needed to maintain competitiveness...”

strategic management skills, and from the farm/forest to the marketplace. In some cases these shortages are severe and significantly hamper sector performance. MAF has an ongoing role in addressing human capital constraints through working with sector bodies, training providers, and government agencies to ensure that policies take into account the interests and economic value of the primary sector.

Financial Capital

Substantial capital investment is needed to maintain competitiveness in some industries and achieve the scale required to supply international markets in others, including developing production offshore. However, high interest rates, exchange rate cycles and planning constraints have discouraged some large-scale investment decisions. The dominance of co-operative structures in the meat and dairy processing industries mean significant complexities in raising sufficient capital to execute more ambitious business strategies – especially offshore expansion – as capital is sourced from farmer shareholders.

Collectively, farmers have been wary about dilution in ownership of their co-operatives as they are concerned about potential loss of farmer control and the impact this might have on their businesses. Co-operative governance structures may not have been sufficiently focused on long-term investment strategies and failed to resolve tensions between what is perceived to be best for farmers in the short-term over what might position their businesses better in the longer-term. This concern has been compounded by the lack of depth in New Zealand’s capital markets, often leading to significant offshore investment. Until the recent “credit crunch” the depth of these markets was improving.

The growing trend for New Zealand’s agriculture and forestry businesses to invest offshore is, in part, to take advantage of low land, labour and compliance costs, but also to avoid market access barriers and reduce transport costs to market. This trend is likely to be a crucial part of any strategy to keep New Zealand producers within internationally competitive business models.

› INNOVATION – WORKFORCE AND RESEARCH SKILLS ARE THE KEY

The crucial advantage New Zealand possesses in agriculture lies in the skill of its agricultural workforce and the efficient systems they have developed. This allows high output compared with many other countries. Retaining these advantages, without undermining the natural environment that underpins the biological economy, requires ongoing innovation and development.

Historically, New Zealand has spent less on innovation than many other developed countries. While overall research and development expenditure as a proportion of GDP rose from 0.95 percent in 1995 to 1.17 percent in 2006, this continues to be well below the OECD average of 2.24 percent and places us in the lower third of OECD countries. Our level of business expenditure at

“...the Government has adopted a partnership approach that draws on a significant Crown capital commitment and an independent, skills and experience-based governance structure to leverage significant new funding from industry.”

“MAF has introduced a Rural Proofing process to improve policy outcomes by increasing cross-government understanding of rural circumstances and needs.”

0.49 percent of GDP is even lower in relation to the OECD average of 1.53 percent. Much of that research and development has been focused on improving farm productivity rather than downstream processing.

To address the legacy of limited private sector investment in pastoral and food research and development, the Government has adopted a partnership approach that draws on a significant Crown capital commitment and an independent, skills and experience-based governance structure to leverage significant new funding from industry. This is a new way of operating, aimed at transforming the productivity and sustainability of the pastoral and food sectors with a particular demand-side and value-chain focus. The initiative has commitments from Fonterra, Meat and Wool New Zealand, Meat Industry Association, Zespri, Dairy New Zealand, PGG Wrightson, Aquaculture New Zealand and the Foundation for Arable Research. The Government has committed \$700 million “up front” (plus interest earned) to be invested over the next 10 to 15 years. Industry has agreed to match this over the same timeframe, resulting in an estimated total investment of between \$1.5–\$2 billion.

An important issue is to improve innovation throughout the value chain, such as developing new markets or responding to consumer choices, rather than concentrating on increasing farm production. This will enable New Zealand to better align the pastoral and food industries with trends and opportunities in global markets, and to adapt demand-driven research and development priorities.

› RURAL AFFAIRS

Around 564 000 (or 14 percent) of New Zealanders live in rural areas. The rural population has grown, but not at the same rate as urban locations. Very remote areas have lost population. The median age of rural New Zealanders tends to be higher than New Zealanders as a whole.

A significant component of MAF’s rural affairs work involves influencing the policy development of other government agencies. Three key areas that MAF seeks to influence are:

- › the provision of connection infrastructure (roads, telecommunications, electricity supply, postal and broadcasting services);
- › access to services (emergency, health, education, disability support, water supply, public transport and social services); and
- › ease and cost of compliance (recognising the practical implications of complying with government requirements in rural areas).

MAF has introduced a Rural Proofing process to improve policy outcomes by increasing cross-government understanding of rural circumstances and needs.

Increasing the understanding between rural and urban societies may require raising awareness of the importance of the primary sectors and providing

information to assist agricultural and forestry businesses to more closely align their practices with changing societal beliefs and values.

The Walking Access policy highlights the close interconnection and relationship between rural and urban New Zealand. It arose from public concern about the availability of public walking access to the outdoors, especially to the coast, lakes, and along rivers. The Walking Access Act 2008 establishes the New Zealand Walking Access Commission administered by MAF, with responsibility for identifying existing walking access opportunities and negotiating new access.

»» NEW ZEALAND'S INTEGRITY AND REPUTATION

The integrity of our ecosystems underpins New Zealand's productive economy and is essential to our social and cultural wellbeing. Indigenous biodiversity is a core part of our natural heritage, and is important to New Zealanders and visitors alike. We have an obligation to maintain our unique and globally important genetic and environmental resource.

Exotic pests and diseases pose a significant threat to indigenous and productive systems, and biosecurity is an issue of permanent urgency. If pests and diseases are not stopped at the border and threats are not addressed as soon as they become apparent, then damage and costs quickly escalate.

New Zealand must also adapt to changing consumer and market expectations. We are facing increased demand for assurances on a range of attributes – quality, safety, environmental and ethical credentials. There is a growing international trend towards the use of environmentally focused technical barriers to trade, and it is likely that we will increasingly need to prove the environmental and ethical credentials of our products.

› BIOSECURITY – PROTECTING OUR NATURAL ADVANTAGE

Biosecurity is the exclusion, eradication or effective management of risks posed by pests and diseases to the economy, environment, and human health. The biosecurity system is wide and covers activities offshore (reducing the risks posed by imported goods at their source), at our borders (stopping pests and diseases getting into New Zealand) and within our borders (eradicating or managing those pests and diseases that have become established).

Biosecurity is vitally important to New Zealand. Trade in animals, plants, and their products poses risks of transmitting pests and diseases. Biosecurity protects our indigenous biodiversity, our productive sectors and our people's health from import risks. It also supports directly our export industries.

MAF provides leadership across the biosecurity system. Its mandate is to lead the biosecurity system to the future state identified in the Biosecurity Strategy of New Zealand (2003), whereby "New Zealanders, our unique natural resources, plants and animals are all kept safe and secure from damaging pests and diseases".

"Biosecurity protects our indigenous biodiversity, our productive sectors and our people's health..."

“...the biosecurity system is based on the concept of risk management rather than risk prevention.”

It is impossible for any country, even a geographically remote island nation like New Zealand, to isolate itself from all risks of imported pests and diseases. Recognising that zero risk is unattainable, and that we do not have unlimited resources to spend on biosecurity, the biosecurity system is based on the concept of risk management rather than risk prevention. Risks are managed down as effectively and cost-efficiently as possible, but some residual risk will always be present while goods and people are moving in and out of New Zealand.

The demand for biosecurity services has been increasing, and difficult priority decisions are required. We must strike the right balance between pushing risk offshore, managing risk at the border, and maintaining capability to respond post-border when the need arises. At times there are conflicting interests amongst stakeholders, or the primary drivers for some stakeholders are not well aligned to those of the biosecurity system. In these situations MAF makes decisions based on what will produce the best outcome for New Zealand overall, by applying an integrated decision-making framework that incorporates the full range of economic, environmental, social and cultural values.

The biosecurity system

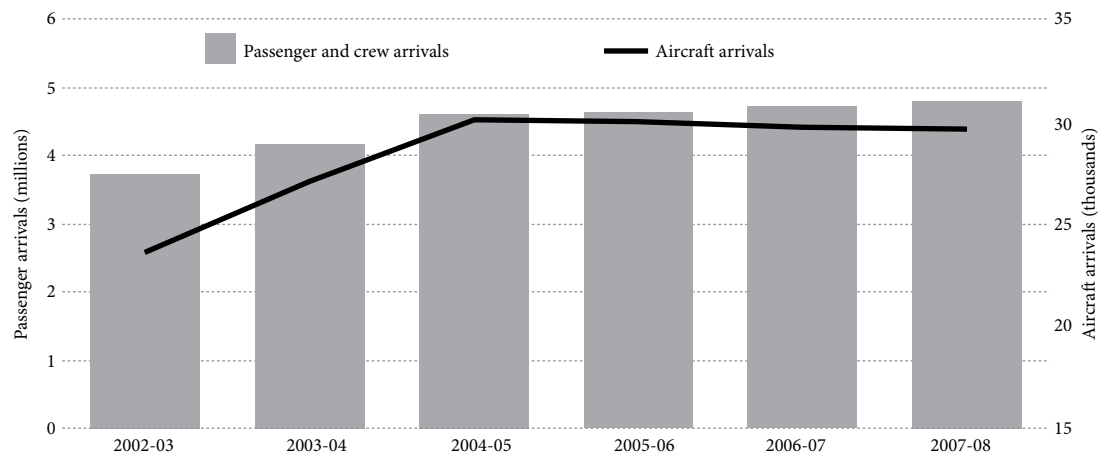
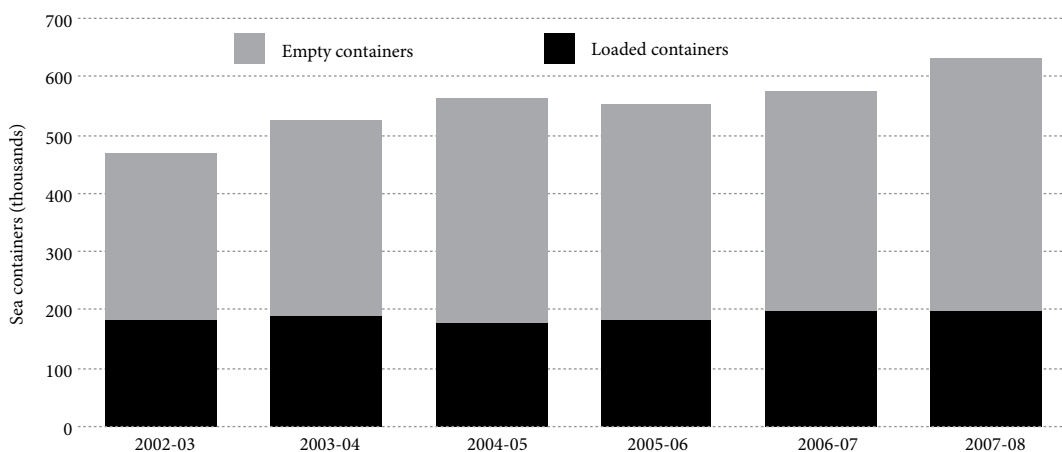
The biosecurity system must be considered in a global context. It is more than just border protection and is bigger than just one government agency. Within New Zealand biosecurity involves central government, regional councils, Māori, industry, community groups, and of course four million pairs of eyes.

There are three separate but interrelated zones of activity:

- › **GLOBAL** – The world outside New Zealand’s borders where biosecurity risks emerge and information on risks is gathered and exchanged. This is where international treaties and multi- and bilateral agreements are negotiated, and where New Zealand’s reputation as a sustainable and safe producer of food products is forged.
- › **PATHWAYS AND BORDERS** – The mode in which biosecurity risk goods and organisms arrive at and enter New Zealand, and the final point at which people, goods and craft are approved for entry or departure. Activities include managing risk prior to or at the border, export trade inspection and the provision of official assurances to importing countries.
- › **WITHIN NEW ZEALAND** – The detection and eradication or management of newly arrived pests and diseases, or of pests and diseases that are already established in New Zealand.

Biosecurity and the rest of the world

As a small nation trading in a global environment, New Zealand gains much from the establishment of fair and consistent rules for international trade. The World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures preserves national sovereignty: countries have the right

FIGURE 1.2: AIR PASSENGER AND AIRCRAFT ARRIVALS INTO NEW ZEALAND**FIGURE 1.3: SEA CONTAINER IMPORTS INTO NEW ZEALAND**

“Biosecurity activities also support our export industries by maintaining New Zealand’s favourable animal and plant health status.”

to protect the life and health of their people, animals and plants, but any restrictions on trade must be based on scientific principles and applied only to the extent necessary. The Agreement enables New Zealand to protect our valued native and introduced flora and fauna from import risks, while at the same time challenging attempts by other countries to erect unjustified trade barriers for our exports.

Biosecurity activities also support our export industries by maintaining New Zealand’s favourable animal and plant health status. Exporters’ continued access to overseas markets depends on their products meeting the health standards of importing countries.

Biosecurity at the border

Preventing unwanted pests and diseases from crossing our borders is becoming more complex. More people are visiting New Zealand from more countries. Ships and planes are getting bigger, faster and bringing goods from a more diverse range of places. Over the last five years, air passenger and crew arrivals increased by 29 percent and sea container arrivals by 35 percent. Although current economic conditions might have some short-term effect, these trends are likely to continue over the longer term.

“We need to target resources to the highest risks, push risk offshore where we can, minimise costs to importers, and work in collaboration with our partner agencies, Māori and other stakeholders.”

“Work is also underway on improving co-operation between the Government’s border agencies.”

While New Zealand is regarded as having one of the strongest biosecurity border systems in the world, improvements are needed to manage ever increasing biosecurity risks. We need to target resources to the highest risks, push risk offshore where we can, minimise costs to importers, and work in collaboration with our partner agencies, Māori and other stakeholders.

New Zealand gives effect to its border protection through Import Health Standards issued under the Biosecurity Act 1993. To gain biosecurity clearance, all risk goods must meet the requirements of an Import Health Standard. These set out the measures that must be taken to reduce the risk of imported goods, such as inspection, fumigation, and quarantine for specified periods. They are based on a scientific assessment of risk, and are widely consulted with domestic and international stakeholders during development.

MAF is reviewing its processes for developing Import Health Standards and implementing these standards at the border. The current process is overly complex, can result in unacceptable delays, and is not structured to efficiently handle projected increased volumes of trade and travel. MAF has capacity to progress only 10 to 15 percent of the requests it receives annually for new Import Health Standards, causing frustration for importers wanting to establish new lines of trade.

MAF wants to improve the efficiency and usability of the system while maintaining or improving the level of biosecurity. The new system will see Import Health Standards streamlined and prioritised for development based on the importance and value to New Zealand of the trade. The intention is to have standards that are more user-friendly, and to clear goods at the border faster with reduced costs and impacts on the supply chain. Opportunities will be explored for giving industry a greater role in co-managing the biosecurity risks associated with goods they import. These changes will be rolled out from early 2009, but represent a substantial shift and will take several years to properly embed.

Work is also underway on improving co-operation between the Government’s border agencies. MAF, the New Zealand Customs Service, the Department of Labour, the Ministry of Transport, the Department of Internal Affairs, and the New Zealand Food Safety Authority have formed the Border Sector Governance Group, which has been tasked with overseeing work covering border operations, information systems and strategic alignment.

While the overall direction is to make border interventions more efficient, some stakeholders have opposite drivers. Industries with a domestic focus and stakeholders with an interest in environmental and social outcomes continue to argue for higher levels of biosecurity protection and increased roles in decision making. Some industries have shown a willingness to litigate to slow down processes and/or prevent trade in new commodities. Maintaining the fine balance between protecting New Zealand’s natural resources while allowing safe trade and travel to proceed is one of MAF’s greatest challenges.

“...it is inevitable that some organisms will enter and become established.”

Biosecurity within New Zealand

Although the biosecurity border system aims to prevent unwanted pests and diseases from crossing our borders, it is inevitable that some organisms will enter and become established. Post border biosecurity activities aim to detect new pests and diseases early, and reduce their impacts through cost effective management.

Post border biosecurity is a joint effort involving MAF, the Department of Conservation, the Ministry of Health, the Ministry of Fisheries, the Ministry for the Environment, regional councils, industry, Māori, community groups and the public. It involves surveillance activities, responding to new pests and diseases, and managing those that are already here.

- › **SURVEILLANCE** – Surveillance detects harmful new organisms that cross the border and monitors high risk sites and the health status of plants, animals and ecosystems. The aim is to detect harmful organisms early enough to enable an effective eradication or management response, and to provide the information necessary to underpin assurances on the health status of our exports.
- › **INCURSION RESPONSE** – Incursion response includes investigating suspect risk organisms found in New Zealand, implementing urgent measures to preserve potential response options, and efforts to reduce the impacts of an organism on New Zealand. These efforts include attempts to eradicate the organism or long-term management of an established organism.
- › **PEST MANAGEMENT** – Pest management involves controlling pests already known to be present in New Zealand, preventing their spread and protecting core values from the impact of pests. New Zealand’s biosecurity history, including the introduction of many species that later became major pests, means expensive ongoing pest control is needed to protect our forests, farms, waterways and coastal environments.

The Biosecurity Strategy contained recommendations in all three of the above areas:

- › MAF is part way through developing a biosecurity surveillance strategy, which will set direction and priorities, and result in better collaboration and information sharing between the players;
- › the incursion response system is functioning well, but opportunities for improvement remain. In particular, MAF is working to establish a framework within which the Crown and industries can agree in advance of an incursion joint decision making and resourcing arrangements for pests of industry significance;
- › there are concerns about the effectiveness and sustainability of the current pest management system. MAF is working with other central government agencies and regional councils to clarify roles and responsibilities, encourage collective action, consider the Crown’s landowner responsibilities, and to assess whether new regulatory tools are necessary.

“MAF works closely with the Ministry of Foreign Affairs and Trade and the New Zealand Food Safety Authority to negotiate favourable market access conditions for New Zealand exports.”

Māori also are increasingly seeking a meaningful involvement in the biosecurity system. As kaitiaki² and significant owners of land and resources, Māori have a vested interest in protecting taonga³ species from pests and diseases. Current work programmes seek to address some Māori aspirations in relation to this interest. These include: the implementation of the Biosecurity Science Strategy which recognises the repository of scientific knowledge Māori and mātauranga Māori⁴ have to offer the biosecurity system; the recent settlement of the Waikato–Tainui Treaty claim regarding the Waikato River and co-management arrangements to restore the wellbeing of the river; and research to better understand Māori values.

► PRODUCT SAFETY, INTEGRITY AND TRACEABILITY – MAINTAINING OUR REPUTATION

Global demand for New Zealand’s agriculture, horticulture, forestry and related products is highly dependent on our reputation as a responsible exporter. There is growing concern and focus by consumers and regulators worldwide on the safety and integrity of food products. Increasingly, quality assurance is being sought along the entire length of the supply chain, “from farm to fork”. In response MAF has adopted systems thinking to ensure we understand the supply chain in its entirety and support our sectors in meeting the growing demands on them for assurances around safety and integrity.

MAF works closely with the Ministry of Foreign Affairs and Trade and the New Zealand Food Safety Authority to negotiate favourable market access conditions for our exports. MAF and the New Zealand Food Safety Authority then provide assurances to trading partners that our export products meet their health and safety standards.

New Zealand’s regulatory agencies are well regarded for their competence, integrity and leadership in the trade of animal and plant products. They are recognised as world leaders in quality assurance and inspection systems. In a deliberate strategy to shape the international rules of trade, New Zealand is proactive in its membership of the World Trade Organization. New Zealanders hold key leadership roles in its three standard setting bodies: the World Organization for Animal Health; International Plant Protection Convention and Codex Alimentarius Commission. We therefore have some comparative advantages over our competitors, but also face some risks of being left behind if we do not strive to constantly improve our systems.

MAF is working in partnership with industry to develop a National Animal Identification and Tracing (NAIT) system that will provide timely, quality information on the location and movement history of New Zealand’s cattle and deer herds. Improved animal identification and traceability is needed to provide export markets with assurances around the sourcing of New Zealand animal based food products, and to underpin claims of disease-freedom following any major incursion.

² The group or individuals who exercise kaitiakitanga or “guardianship”.

³ Culturally important species/treasures with which Māori have a recognised cultural, historic and traditional association.

⁴ Māori knowledge systems, concepts and world views

“MAF’s animal welfare function supports the expectations of New Zealand society for the welfare and humane treatment of animals.”

A more complete rural property register (Farms On Line) will be developed together with NAIT. Properties associated with cattle and deer (for example, farms, sale yards, meat processors) will need to be registered. When cattle and deer move between properties or to slaughter, information will be recorded to provide a history of movements for each animal.

In Budget 2008 the Government approved capital funding of \$4.7 million over five years to build the NAIT system, and 35 percent of the running costs for the system each year. Industry will fund the remainder of the running costs. Another \$3 million of capital has been approved to develop Farms On Line, and around \$1.8 million per year of running costs. Farms On Line will be wholly Crown-owned.

Work led by MAF on the Greenhouse Gas Foot-Printing Strategy aims to provide a life-cycle analysis of major exports, including dairy, meat and horticultural products, to measure the environmental impact of products along the length of the supply chain. MAF also provides funding to Organics Aotearoa New Zealand to provide advisory services to prospective organics producers.

➤ ANIMAL WELFARE – ENSURING THE HUMANE TREATMENT OF ANIMALS

MAF’s animal welfare function supports the expectations of New Zealand society for the welfare and humane treatment of animals. Strong animal welfare standards also contribute to market success and product positioning of our exports.

The Animal Welfare Act provides for codes of welfare to be developed and issued for different species and animal management practices. Codes of welfare establish minimum standards and best practice guidelines for the care of animals. Breach of a minimum standard in a code of welfare can be used as evidence to support a prosecution for a breach of the Animal Welfare Act.

Animal welfare enforcement is a joint effort involving MAF, the Royal New Zealand Society for the Prevention of Cruelty to Animals (RSPCA), and the New Zealand Food Safety Authority Verification Agency. There are also a number of other organisations and individuals involved in animal welfare compliance activities, particularly in areas other than enforcement, such as raising awareness of owners’ obligations under the Animal Welfare Act. These include Federated Farmers, and industry organisations such as Dairy New Zealand and Meat and Wool New Zealand.

The RSPCA deals primarily with urban and companion animal complaints and MAF is responsible for investigating complaints in the rural and production animal sector. Increasingly, the RSPCA has been assisting MAF in the rural and production animal sector, as MAF does not have the capacity to deal with all such complaints. The value of the RSPCA’s enforcement work to the Government has been estimated to be approximately \$5 million per annum.

“Sheep and beef cattle producers have been the sectors worst affected by the drought.”

New Zealand experienced one of the worst droughts on record during 2008. The National Drought Committee, which MAF convened in February, included specific animal welfare input. Although the Government’s special drought recovery measures will end on 31 December, the drought’s effects on animal welfare have only recently begun to be experienced fully and are likely to continue for some time. Sheep and beef cattle producers have been the sectors worst affected by the drought.

MAF is currently resourced for five animal welfare inspectors. This resource is targeted primarily to investigating animal welfare offences once they have occurred, rather than proactive compliance activities. There are concerns with the current level of compliance with animal welfare standards, and the ability of MAF to address this. Further, it is likely that New Zealand’s success in international markets will increasingly rely on ensuring that animal welfare standards are high and that compliance with these standards can be demonstrated.

New Zealand is particularly vulnerable to major adverse events due to the distribution of farmed animals across nearly 50 percent of our land mass and our high economic dependency on exports derived from animal products. The National Animal Welfare Emergency Management Group was established in 2006 to address gaps in animal welfare emergency management planning and co-ordination.

As a result of a review of policy on the export of livestock for slaughter, a Customs Export Prohibition Order was implemented in December 2007. The Order prohibits the export of live sheep, cattle, goats and deer for slaughter, but provides for the Director-General of MAF to grant exemptions on a case-by-case basis, where satisfied that the risks to New Zealand’s reputation as a responsible exporter of agricultural products could be managed satisfactorily. The Order does not apply to exports for breeding or any other purpose.

MAF will be undertaking, in the next few months, a review of the animal welfare requirements for long distance transport of live animals. The objective of the review will be to ensure consistent decision making on applications to export animals for purposes such as breeding, and that our animal welfare requirements are up-to-date.

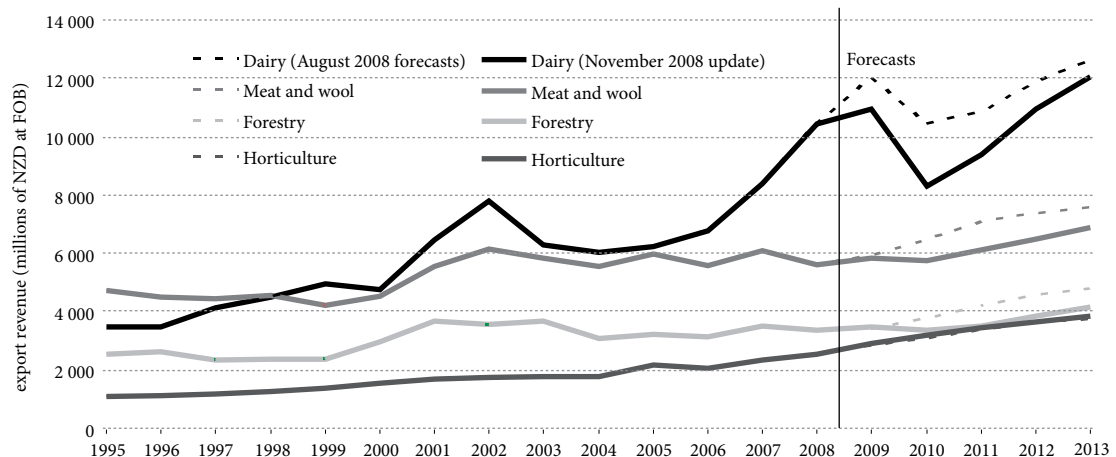
SNAPSHOT OF THE SECTORS

2

This section provides a brief outline of the current and likely future performance of key productive sectors.

Figure 2.1 illustrates the net effect of deteriorating global economic prospects, and a depreciating trend in the New Zealand dollar exchange rate on forecast export revenues. There is a significant fall in forecast revenue for dairy, meat and wool, and forestry. Lower international prices – and in some cases lower export volumes – due to a weaker global outlook are being mitigated by the depreciation of the New Zealand dollar. Dairy exports are forecast to take a larger hit in the year ended March 2010 compared to other product areas. The outlook continues to worsen as illustrated in Figure 2.1.

FIGURE 2.1: EXPORT RETURNS 1995 TO 2013 (FORECAST)



“The dairy sector is New Zealand’s top export earner and a key driver of economic growth.”

»» DAIRY: BOOM OVER FOR NOW, BUT LONG-TERM PRICES HOLDING

The dairy sector is New Zealand’s top export earner and a key driver of economic growth. In 2008 the value of dairy exports increased 25 percent to \$10.5 billion, comprising 27 percent of total merchandise trade, and contributing to approximately 8 percent of GDP.

International dairy prices soared during the 2007/08 season due to strong growth in demand (particularly from emerging economies and oil exporters), and supply shortages following drought in Australia and New Zealand and a decline in EU exports. Dairy prices have fallen off sharply in recent months, in line with slower world growth and increased supply (particularly from the US), but are expected to remain above long run historical levels. Fonterra’s farmer payout reached a 43-year high (in inflation-adjusted terms) averaging \$7.90/kg milksolids in 2007/08, but is forecast to fall steeply.

“The dairy processing industry is dominated by Fonterra Cooperative Ltd, collecting 94 percent of the milk supply.”

“Forestry contributes about 3 percent of New Zealand’s GDP and directly employs around 23 400 people.”

Costs have been a significant influence on profitability with rising labour, fuel and fertiliser costs over the last decade. Debt and financing costs are also a major driver of profitability for some parts of the farming sector.

According to Reserve Bank data, the 80:20 rule applies: across all farms, 20 percent hold 82 percent of the liabilities. In particular, farms created in the last decade are much more highly geared, leaving them more vulnerable. Among these, dairy farms are 6.5 times more highly geared than their counterpart sheep and beef farms. Even dairy farms created more than 20 years ago are twice as leveraged as their sheep and beef counterparts. While leveraging may well reflect productive investment, the cost of debt could impact adversely on cashflow in these businesses.

The dairy processing industry is dominated by Fonterra Cooperative Ltd, collecting 94 percent of the milk supply. There are two other main processing co-operatives, Tatua and Westland. A number of investor owned companies have entered, or announced entry into, the market since 2004/05. Some of these companies have ambitious expansion plans and it is forecast that their market share will expand rapidly in the coming years.

Fonterra is solely owned by farmer shareholders and regulated under the Dairy Industry Restructuring Act 2001. Because of the co-operative structure of Fonterra, expansion is constrained by the willingness and ability of farmer shareholders to provide capital. In 2007, Fonterra released a proposal to overcome this constraint by changing its capital structure to enable international expansion and potentially significantly increase the company’s contribution to New Zealand’s economy.

During 2007, MAF led an interdepartmental working group that, among other things, considered the national interest implications of Fonterra’s proposed changes. These considerations were incorporated into the option recommended to Fonterra farmer-shareholders. An initial opportunity for shareholders to vote on the proposal had been planned for May 2008, but the decision has now been deferred to allow Fonterra to engage in further discussion and consultation.

In addition, MAF is reviewing the Raw Milk Regulations to ease pressures arising from the emergence of new entrants in the dairy processing sector, many of whom purchase milk from Fonterra.

»» FORESTRY: EXCHANGE RATE DRIVING RETURNS

The forestry sector’s annual gross income is around \$5 billion. This is off 7 percent of the country’s land area. Forestry contributes about 3 percent of New Zealand’s GDP and directly employs around 23 400 people.

Wood products are the third largest export earner behind dairy and meat. Total export earnings from wood products for the year ended June 2008 were \$2.9 billion, down 7 percent against the June 2007 year.

“Plantation forestry produces a renewable resource as well as environmental benefits...”

Australia, North Asia and the US have remained New Zealand’s major wood product markets in the last decade. However, the percentage of exports going to China, the US, Vietnam and India significantly increased, while exports going to Japan decreased.

Forestry returns have been affected by the high New Zealand dollar and high shipping charges and continue to struggle to provide investors with returns that encourage sustained investment. It is forecast that the total forestry export value will remain flat with log markets potentially more positive than processed wood products. These market conditions have already triggered significant rationalisation within the wood processing sector, which is likely to continue for some time particularly among smaller and older processing facilities.

Plantation forestry produces a renewable resource as well as environmental benefits (including carbon sequestration), some of which have a monetary value associated with them. However, investment in processing has not kept pace with wood harvest increases. Similarly, planting rates and wider industry confidence have been weak in the face of uncertainty in climate change policy. In some regions, fragmented ownership is creating difficulties in achieving critical mass in production, processing and marketing; whereas in others, large-scale ownership is providing cornerstone wood supply agreements to encourage investment in processing.

MAF has been working with the forestry industry through the Forest Industry Development Agenda, including on the bioenergy and wood design aspects. The Forest Industry Development Agenda has now reached the end of its current work programme and MAF is working with industry on possible next steps. In conjunction with the Energy Efficiency and Conservation Authority and other agencies, MAF is implementing policies to develop New Zealand’s bioenergy resources, including the conversion of school boilers to wood chips and bioenergy co-generation.

Recent MAF/Forest Industry Development Agenda initiatives in wood options for government buildings and university wood design innovation should help drive new opportunities in value-added wood products. Opportunities exist for future development of forestry based bioenergy and biomaterials, such as ligno-cellulosic ethanol, solid wood energy and biochar.

➤ CROWN FORESTRY

MAF, through the Crown Forestry Group, administers the Crown’s interest in forestry leases on Māori land, residual Crown forest assets, Forestry Encouragement loans and, from 1 January 2009, the forest estates currently owned and managed by the State-owned Enterprise, Timberlands West Coast Ltd.

“With over 60 000 hectares under its management, Crown Forestry is soon to be the fifth largest forest grower in the country...”

“...much of the meat industry has been experiencing low levels of profitability in recent years.”

With over 60 000 hectares under its management, Crown Forestry is soon to be the fifth largest forest grower in the country with many of its forests planted on Māori land. It forecasts revenue of \$99 million and expenditure of \$84 million in the 2008/09 year on the back of total assets of \$229 million as at 30 June 2008. The forecast operating surplus is down on earlier forecasts as a consequence of present difficult trading conditions and cost pressures in the forest industry.

The forests inherited from Timberlands West Coast Ltd are of poor quality and in some places uneconomic to harvest. The continued management and harvesting of these forests is expected to have a detrimental effect on the financial performance of the wider Crown Forestry Group. In many places post-harvest replanting is not considered viable. The Crown is committed to the payment of rentals to Ngāi Tahu, as landowner, for the Timberlands forest lands for some time to come and the local sawmilling industry is somewhat reliant on the harvesting of these forests, which together further complicate the management of these assets.

The Crown's policy is to progressively sell its forestry assets on a commercial basis, with some constraints on this due to the non-assignable nature of some leases and the need to await settlement of some Treaty of Waitangi claims.

»» MEAT AND WOOL: CAPTURING THE VALUE

The meat industry generated \$4.6 billion in export earnings in 2007/08, and has considerable potential for growth due to the advantages associated with New Zealand's production systems including quality, sustainability, animal welfare and energy use.

However, much of the meat industry has been experiencing low levels of profitability in recent years. Commodity prices have remained low, the high New Zealand dollar has seriously affected returns, and on-farm costs have increased. Beyond these external factors, it is widely considered that the meat industry has generally underperformed, and is neither creating nor capturing the maximum value that its potential allows.

The short- to medium-term outlook for meat is much more positive. Recent price rises for beef and lamb have been driven by a combination of international supply constraints, such as adverse climatic conditions and changing agricultural policies, and by an improved demand outlook, fuelled by strong income growth in the developing world.

Like other sheep-producing nations New Zealand is experiencing a marked decline in its sheep flock. The sheep industry is dependent on historical market positioning in quota markets in Europe and market signals in the wider meat industry are muted by the nature of the value chain. The price of wool is currently at its lowest recorded level in real terms. While the price is forecast to lift, many sheep farmers are resigned to wool's status as an unprofitable by-

“Poor profitability and declining sheep numbers make meat industry restructuring a major issue for the sector...”

product of sheepmeat production. Efforts are being made in the sector to lift the value of wool production but it is too early to tell whether this will be successful.

Poor profitability and declining sheep numbers make meat industry restructuring a major issue for the sector, which may raise significant public policy issues which MAF will need to advise Government on.

Discussions of wide-scale meat industry restructuring, including that of a “mega-merger” of the major meat processors, have not progressed. Earlier in 2008 Silver Fern Farms (farmer-owned co-operative and New Zealand’s largest meat processor) agreed to a partnership with rural service provider PGG Wrightson. This deal was promoted as a vehicle for both industry rationalisation and a new vertically integrated business model focused across the value chain. However, the global credit crisis has resulted in an inability to raise finance, so the deal has fallen through for the time being.

Some processing facilities were closed in 2008 and with a decreased sheep flock it is highly likely that further rationalisation will be required.

To date MAF has played a facilitative role where appropriate, with industry and with other government agencies that have an interest in this area. MAF is now working to identify the strategic challenges and opportunities which will face New Zealand’s red meat sector in the next 20 years.

»» HORTICULTURE: INNOVATION THE KEY

The horticulture industry generated \$2.8 billion in export earnings in 2007/08. Parts of the industry are expanding rapidly, most notably in wine production and exporting. The industry is structurally diverse, ranging from Zespri’s single desk export right for kiwifruit (established by regulations), to highly fragmented value chains where market discipline is difficult to achieve.

Low and fluctuating income levels are restricting capital investment and innovation in some parts of the horticulture sector. The sector must continue to research and invest in new varieties, environmentally friendly production systems, and new innovative products to remain competitive in the domestic and international markets.

Availability of seasonal labour, particularly around the harvest time, is critical for this sector. The Recognised Seasonal Employer scheme has alleviated growers’ concerns to some extent but longer-term labour supply challenges remain.

Kiwifruit production continued to rise in 2007/08, and rises in average yields per hectare are expected. The unfavourable exchange rate was responsible for much of the price fall for kiwifruit growers in the past year. In a competitive environment, kiwifruit growers are implementing a range of innovations to improve productivity, reduce variation in yields and improve fruit taste and quality.

“Availability of seasonal labour, particularly around the harvest time, is critical for this sector.”

“Māori are significant participants in our primary industries, with investments in land, forests, farming, and related industries.”

A slowdown in demand in developed countries could be expected to dampen wine prices at a time when New Zealand production is reaching record levels. This comes on top of emerging signs of wider pressures on profitability in the wine industry.

»» FRESH VEGETABLES: LARGE REGIONAL EMPLOYER

Fresh and processed vegetable exports account for around \$500 million in revenues, the main markets being Australia, Japan, and the EU. The main processors are the multinationals Heinz New Zealand Watties and McCains, the former a particularly large regional employer. Their approach at present is “business as usual”, but with tight inventory control. Returns are highly dependent on exchange rate fluctuations.

»» MĀORI: INCREASING OWNERSHIP OF PRIMARY SECTOR

MAF has been increasing its focus on Māori, both as a Treaty partner and also as a major player in the agriculture and forestry industries.

Māori are significant participants in our primary industries, with investments in land, forests, farming, and related industries. The total Māori land holding is 1.5 million hectares with a value of \$7.5 billion.

Māori farm 10 to 15 percent of New Zealand sheep and cattle and have an estimated shareholding in Fonterra of \$1 billion. However, only 30 percent of Māori land is in pasture (compared to the New Zealand average of 44 percent), and Māori sheep and beef farms operate at only 70 percent productivity of the national average.

3

MAF THE ORGANISATION

“MAF’s mission is to enhance New Zealand’s natural advantage and this defines the scope and links across all our activities.”

MAF is the government agency responsible for developing and implementing a range of initiatives and interventions to sustainably develop New Zealand’s agriculture, food and forestry sectors and to protect our biosecurity status. Our mission is to enhance New Zealand’s natural advantage and this defines the scope and links across all our activities. We do this through our work in biosecurity, environmental sustainability and primary industry development.

»» MAF’S ROLE

MAF is mandated to:

- › Develop, provide and implement policy advice and initiatives on matters affecting the sustainable development of sectors.
- › Co-ordinate, further develop and co-implement New Zealand’s biosecurity system.
- › Co-ordinate, develop and negotiate market access frameworks associated with the trade in sector goods.
- › Develop and implement policy advice and initiatives aimed at “rural proofing” in New Zealand.
- › Administer and implement aspects of New Zealand’s indigenous forestry legislative framework.
- › Manage the Crown’s forestry and related assets.
- › Further develop and administer New Zealand’s animal welfare legislative framework.
- › Develop and implement aspects of New Zealand’s response to climate change.

One of MAF’s key functions is developing and implementing fit-for-purpose and efficient regulation that sets rules governing business behaviour, while fostering innovation and minimising compliance costs.

In performing its role, MAF promotes the economic prosperity, health and wellbeing, and environmental sustainability that contribute to the quality of life New Zealanders enjoy.

»» ROLE OF THE MINISTER

The Minister of Agriculture, Biosecurity and Forestry is responsible for a large number of statutory and regulatory processes arising from wide ranging legislation.

Many of these processes involve a high degree of delegated authority to MAF due to their technical, scientific and necessarily apolitical nature. For example, Ministerial decision-making in biosecurity or animal welfare is very limited and decisions typically fall on the Director-General or Chief Technical Officers.

A full list of public and private acts administered by MAF is attached as Appendix 4.

A more substantive briefing regarding Ministerial and Departmental responsibilities will be provided.

»» MAF'S OUTCOMES

The strands of trade, sector performance and innovation policy, biosecurity and sustainability of production systems are all reflected in the three outcomes that MAF is working to achieve:

- ECONOMY:** Sustainable economic growth and prosperity for New Zealanders.
- PEOPLE:** Healthy New Zealanders and a vibrant rural community.
- ENVIRONMENT:** Maintained and enhanced economic, social and cultural benefits for New Zealanders from the natural environment.



“MAF sits at the nexus of many different streams of work involving both the public and the private sectors.”

MAF sits at the nexus of many different streams of work involving both the public and the private sectors. As a result, the Ministry is required to be able to work effectively across numerous boundaries and with a wide variety of individuals and organisations.

»» COLLABORATION WITH OTHER GOVERNMENT AGENCIES

MAF works with several departments across a range of issues such as trade (with the Ministry of Foreign Affairs and Trade and the New Zealand Food Safety Authority) and economic performance (with the Ministry of Economic Development). Two other significant areas of collaboration for 2008-2011 are at the border and the management of natural resources.

MAF, the New Zealand Customs Service, the New Zealand Immigration Service, the Ministry of Transport (aviation security), the Department of

*“...provides
Ministers with
monitoring advice
on the performance
of MAF’s Crown
Entities...”*

Internal Affairs, and the New Zealand Food Safety Authority have started an ambitious work programme to improve collaboration within government and between government border stakeholders. A Border Sector Governance Group comprising of the heads of the agencies is overseeing this work.

Aligned with this, MAF and the New Zealand Customs Service are collaborating on the development of a joint border information management system. MAF and the Customs Service both collect and validate information relating to the cross-border movement of people, goods and craft. The two agencies existing border information systems need replacing, and there will be significant synergies and efficiencies in the development of a joint system. A business case is being prepared for Cabinet consideration in mid-2009.

Chief Executives of the agencies involved in the natural resources cluster – MAF, Ministry of Fisheries, Ministry for the Environment, Ministry of Economic Development, Land Information New Zealand, Department of Conservation, Te Puni Kokiri, The Treasury, State Services Commission and Department of Prime Minister and Cabinet – have recently agreed to establish a formal networked approach to the provision and implementation of advice relating to the management of natural resources. The key purpose behind this network is to ensure a strategic and integrated approach to natural resource policies and management – from policy to service delivery – occurs across agencies in relation to both long-term issues and the policy priorities of the Government of the day.

»» CROWN ENTITIES

Crown Entity monitoring provides Ministers with monitoring advice on the performance of MAF’s Crown Entities and helps the Crown Entities maintain an approach that is consistent with the Government’s goals and complies with their reporting obligations.

MAF has recently acquired a new function, the monitoring of two Crown entities, with the likelihood of a third entity in 2010/11:

THE NEW ZEALAND WALKING ACCESS COMMISSION is a Crown agent funded through a MAF non-departmental other expense. Its role is to provide national leadership and co-ordination of walking access which includes: development of a National Strategy for Walking Access; providing public information about the location of walking access; managing walkways; negotiating and funding of new access; facilitating the resolution of disputes; research and education; providing advice to the Minister on walking access; and creation of a code of conduct in respect of walking access.

NEW ZEALAND FAST FORWARD LTD has been established as a 100 percent government-owned company under schedule four of the Public Finance Act, but will operate as a Government/Industry collaboration with a jointly-appointed board. New Zealand Fast Forward Ltd is funded from transfers from the New Zealand

Fast Forward fund which is a Crown company that manages a \$700 million capital fund provided by the Government. Its role is to identify and implement a programme of strategically aligned, collaborative, targeted investments in pastoral and food innovation.

In 2010/11 the **NATIONAL ANIMAL IDENTIFICATION AND TRACING SYSTEM** will be established as a Crown organisation under MAF (probably as a company under schedule four of the Public Finance Act like New Zealand Fast Forward Limited). MAF is leading the development of the policy advice on the establishment of the National Animal Identification and Tracing system and is examining potential governance arrangements for the organisation that will build the system. This entity may be different from the entity that owns and runs the final National Animal Identification and Tracing system. Depending on their final form, both these organisations may also require monitoring by MAF.

»» OTHER MONITORING ROLES

MAF administers the Crown's interest in the Bovine tuberculosis (Tb) national pest management strategy. Tb is a disease that can infect humans and a wide range of domestic and wild animals. The disease is managed by a national pest management strategy under the Biosecurity Act. The Tb Strategy is currently on track to achieve its objective of reducing, by 30 June 2013, the rate of infected cattle and deer herds to 0.2 percent or less. This is the level required for New Zealand to gain the status of "Official Freedom" from bovine Tb, thereby protecting our reputation as a supplier of safe, high quality meat and dairy products.

The Animal Health Board Incorporated is responsible for implementing the Tb Strategy. The Board's members represent the major funders of the Tb Strategy.

The costs of implementing the Tb strategy are approximately \$78 million per annum, of which approximately \$30 million comes from Crown funding via a non-departmental output expense.

The Biosecurity Act requires that a pest management strategy be reviewed at least once every five years. The next review of the Tb Strategy must commence by September 2009.

»» VOTE STRUCTURE AND BUDGET

MAF administers two votes: Vote: Agriculture and Forestry, and Vote: Biosecurity.

MAF provides the following services under Vote Agriculture and Forestry to achieve its outcomes: agriculture and forestry policy advice; animal welfare; administration of indigenous forestry provisions; climate change advice; contract, grant and asset management; and support services to other agencies.

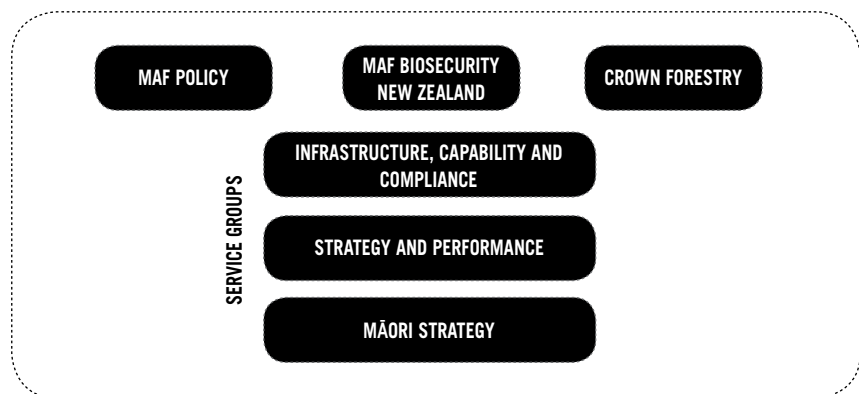
"MAF administers two votes: Vote: Agriculture and Forestry, and Vote: Biosecurity."

MAF provides the following services under Vote: Biosecurity to achieve its outcomes: biosecurity policy; biosecurity approvals and assurance; biosecurity enforcement; biosecurity standards; biosecurity surveillance and incursion response; and border clearance services.

A financial summary for MAF votes is attached as Appendix 1.

»» MAF'S STRUCTURE

A detailed structural diagram is attached as Appendix 2.



MAF POLICY provides policy advice and service delivery to help create prosperous, sustainable and innovative agriculture, food and forestry sectors.

MAF BIOSECURITY NEW ZEALAND leads New Zealand's biosecurity system and has international trade and animal welfare responsibilities.

CROWN FORESTRY manages the Crown's interest in forestry leases on Māori land, residual Crown forest and other forestry assets.

INFRASTRUCTURE, CAPABILITY AND COMPLIANCE provides finance and asset management; legal; information management; human resources; and enforcement. Some services are provided to the New Zealand Food Safety Authority through a shared services agreement.

STRATEGY AND PERFORMANCE GROUP advises on MAF's strategic direction and performance; provides assurance with regard to the management of potential risks; prepares key accountability documents; leads and facilitates key planning processes; and leads organisational communications and the management of stakeholder relationships.

MĀORI STRATEGY UNIT promotes a greater internal awareness of Māori issues and concerns, increasing MAF's understanding of the Treaty of Waitangi and creating more effective relationships with Māori.

KEY STAFF

TITLE	NAME
Director-General	Murray Sherwin
(Executive Assistant to the Director-General)	Virginia Wright
Deputy Director-General, MAFBNZ	Barry O'Neil
Deputy Director-General, MAF Policy	Paul Stocks
Deputy Director-General, Strategy & Performance	Dan Bolger
Deputy Director-General, Infrastructure, Capability and Compliance	Larry Fergusson
General Manager, Crown Forestry	Charles Schell
Director, Māori Strategy Unit	George Ria
Director, Communications	Jeremy Lambert

APPENDIX 1 FINANCIAL SUMMARY FOR MAF VOTES

»»» SUMMARY OF 2008/09 EXPENDITURE APPROPRIATIONS

	AGRICULTURE AND FORESTRY \$000	BIOSECURITY \$000	TOTAL \$000
Departmental Output Expenses	95 816	157 817	253 633
Non-Departmental Output Expenses	94 623	30 699	125 322
Non-Departmental Other Expenses	26 021	130	26 151
Departmental Capital Expenditure	18 750	–	18 750
Non-Departmental Capital Expenditure (includes Fast Forward)	751 900	–	751 900
Total	987 110	188 646	1 175 756

»»» DEPARTMENTAL OUTPUT EXPENSES

	REVENUE CROWN \$000	REVENUE OTHER \$000	TOTAL \$000
» VOTE: AGRICULTURE AND FORESTRY			
Administration Of Indigenous Forestry Provisions	2 219	62	2 281
Agriculture And Forestry Policy Advice	29 426	172	29 598
Animal Welfare	2 547	60	2 607
Contract Grant And Asset Management	3 794	32	3 826
Climate Change	47 687	217	47 904
Support Services To Other Agencies	–	9 600	9 600
Total Vote: Agriculture And Forestry	85 673	10 143	95 816
» VOTE: BIOSECURITY			
Biosecurity Approvals And Assurance	1 227	1 140	2 367
Biosecurity Enforcement	3 596	170	3 766
Biosecurity Policy	11 881	220	12 101
Biosecurity Standards	21 022	3 950	24 972
Biosecurity Surveillance And Incursion Response	42 678	4 598	47 276
Border Clearance Services	38 935	28 400	67 335
Total Vote: Biosecurity	119 339	38 478	157 817
Total Votes Agriculture And Forestry And Biosecurity	205 012	48 621	253 633

»»» NON-DEPARTMENTAL OUTPUT EXPENSES

	\$000
> VOTE: AGRICULTURE AND FORESTRY	
Management of Crown Forestry Assets	94 623
> VOTE: BIOSECURITY	
Control of Tb Vectors	30 699
Total Votes Agriculture and Forestry and Biosecurity	125 322

»»» NON-DEPARTMENTAL OTHER EXPENSES

	\$000
> VOTE: AGRICULTURE AND FORESTRY	
Afforestation Grants Scheme	5 000
Adverse Climatic Events	736
Community Irrigation Fund	243
Community Irrigation Schemes	17
East Coast Afforestation Grants	8 803
Organic Initiatives	750
Subscriptions to International Organisations	2 028
Sustainable Farming Fund	8 444
Total Vote: Agriculture and Forestry	26 021
> VOTE: BIOSECURITY	
Subscriptions to International Organisations	130
Total Votes Agriculture and Forestry and Biosecurity	26 151

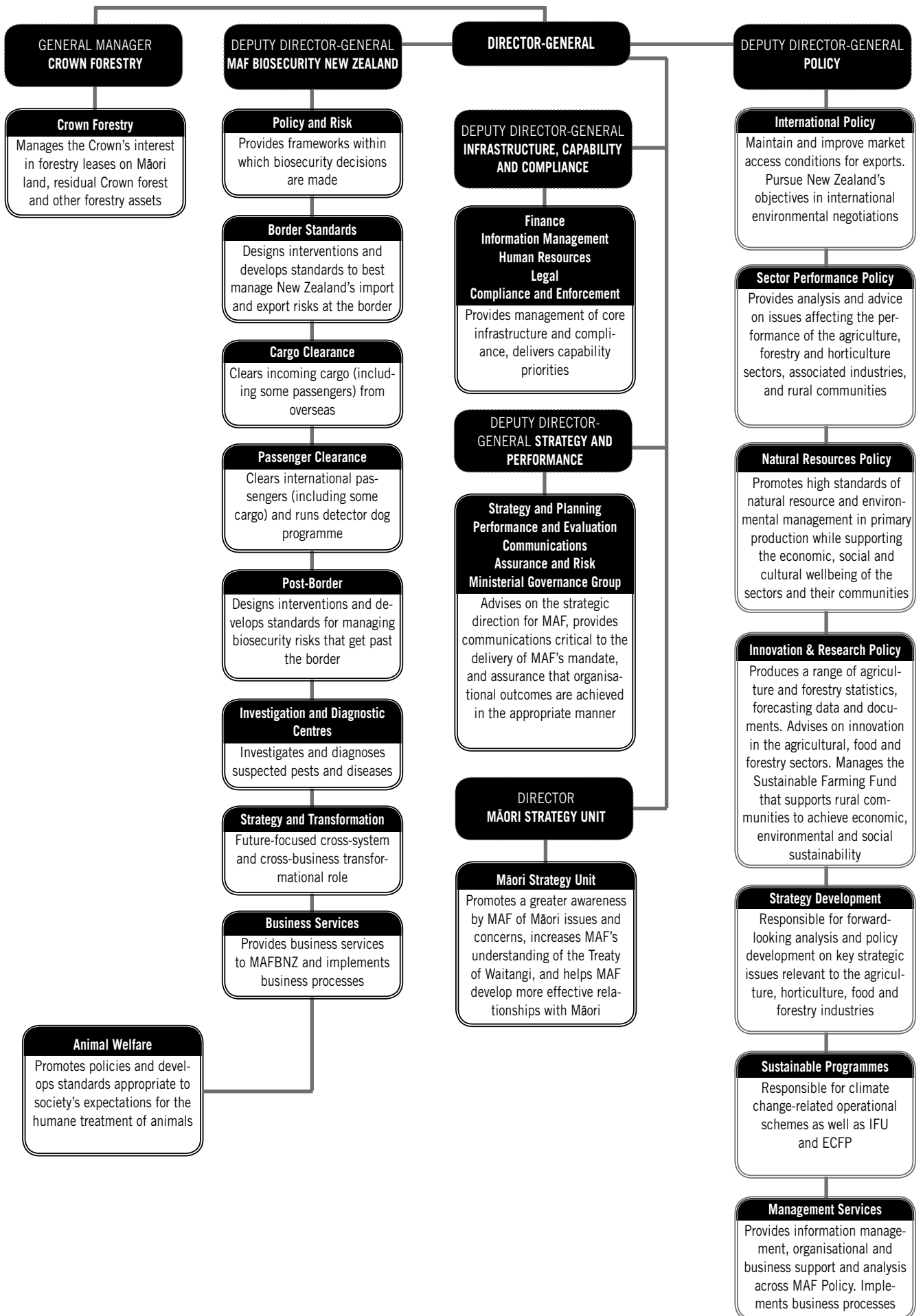
»»» NON-DEPARTMENTAL CAPITAL EXPENDITURE

	\$000
> VOTE: AGRICULTURE AND FORESTRY	
New Zealand Fast Forward Fund	700 000
Crown Forestry Assets	11 900
Purchase of Assets from Timberlands West Coast	40 000
Total Votes Agriculture and Forestry and Biosecurity	751 900

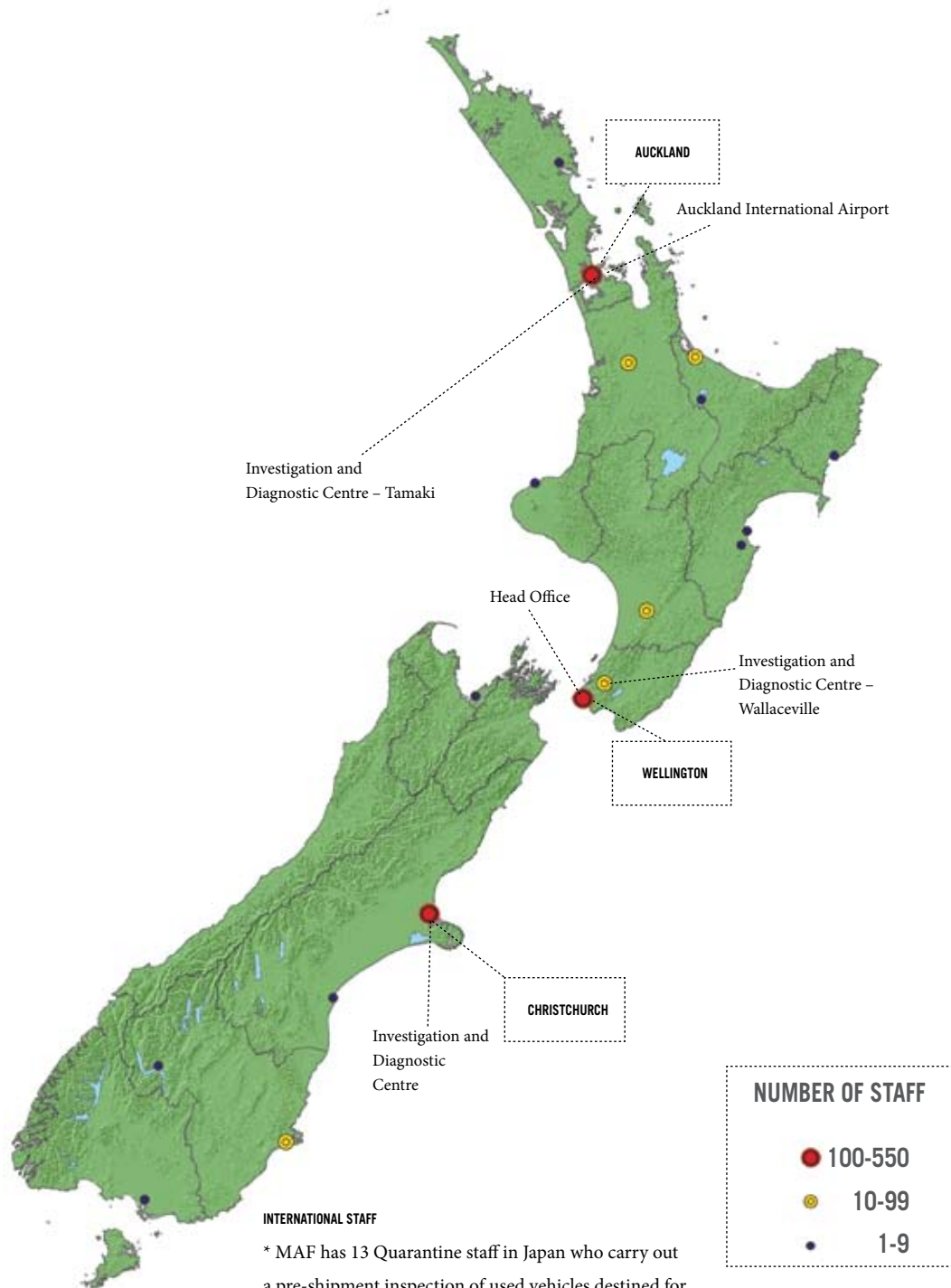
»» CROWN REVENUE AND CAPITAL RECEIPTS

	\$000
> VOTE: AGRICULTURE AND FORESTRY	
Crown Forestry Assets	106 161
Emissions Trading Scheme Fees	3 290
Dairy Industry Levy	500
Forestry Encouragement Loan Interest	2 300
Forestry Encouragement Loan Repayments	2 659
Total Vote Agriculture and Forestry	114 910
> VOTE: BIOSECURITY	
Biosecurity Act 1993 Fines	850
Total Votes Agriculture and Forestry and Biosecurity	115 760

APPENDIX 2 A SUMMARY OF FUNCTIONS WITHIN MAF



APPENDIX 3 MAF STAFF LOCATIONS



INTERNATIONAL STAFF

* MAF has 13 Quarantine staff in Japan who carry out a pre-shipment inspection of used vehicles destined for New Zealand.

**MAF has staff attached to four international posts – Beijing, Brussels, Geneva and Washington.

APPENDIX 4

LEGISLATION ADMINISTERED BY MAF**»» PUBLIC ACTS**

- › Agricultural and Pastoral Societies Act 1908
- › Animal Control Products Limited Act 1991
- › Animal Identification Act 1993
- › Animal Welfare Act 1999
- › Apple and Pear Industry Restructuring Act Repeal Act 2001
- › Biosecurity Act 1993
- › Commodity Levies Act 1990
- › Dairy Industry Restructuring Act 2001
- › Forestry Encouragement Act 1962
- › Forestry Rights Registration Act 1983
- › Forests Act 1949
- › Forests (West Coast Accord) Act 2000
- › Franklin-Manukau Pests Destruction Act 1971
- › Hazardous Substances and New Organisms Act 1996 (administered by Ministry for the Environment, but MAF enforces the new organisms provisions)
- › Hop Industry Restructuring Act 2003
- › Irrigation Schemes Act 1990
- › Kiwifruit Industry Restructuring Act 1999
- › Meat Board Act 2004
- › Ministry of Agriculture and Fisheries (Restructuring) Act 1995
- › Ministries of Agriculture and Forestry (Restructuring) Act 1997
- › Ministry of Agriculture and Forestry (Restructuring) Act 1998
- › New Zealand Horticulture Export Authority Act 1987
- › Phosphate Commission of New Zealand Dissolution Act 1989
- › Plants Act 1970
- › Pork Industry Board Act 1997
- › Potato Industry Act Repeal Act 1988
- › Poultry Board Act Repeal Act 1989
- › Primary Products Marketing Act 1953
- › Public Works Act 1981 (Part Xix)
- › Royal New Zealand Institute of Horticulture Act 1953
- › Taratahi Agricultural Training Centre (Wairarapa) Act 1969
- › Veterinarians Act 2005
- › Walking Access Act 2008
- › Wool Industry Restructuring Act 2003

»» PRIVATE ACTS

- › Auckland Agricultural Pastoral and Industrial Shows Board Act 1972
- › Canterbury Agricultural and Pastoral Association Empowering Act 1982
- › Clevedon Agricultural and Pastoral Association Empowering Act 1994
- › Kumeu District Agricultural and Horticultural Society Act 1991
- › Marlborough Agricultural and Pastoral Association Empowering Act 1974
- › Palmerston North Showgrounds Act 1974
- › Telford Farm Training Institute Act 1963
- › Tokoroa Agricultural and Pastoral Association Empowering Act 1968
- › United Wheatgrowers Act 1936
- › Waikato Show Trust Act 1965

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