The Natural Resources Sector Briefing to Incoming Ministers

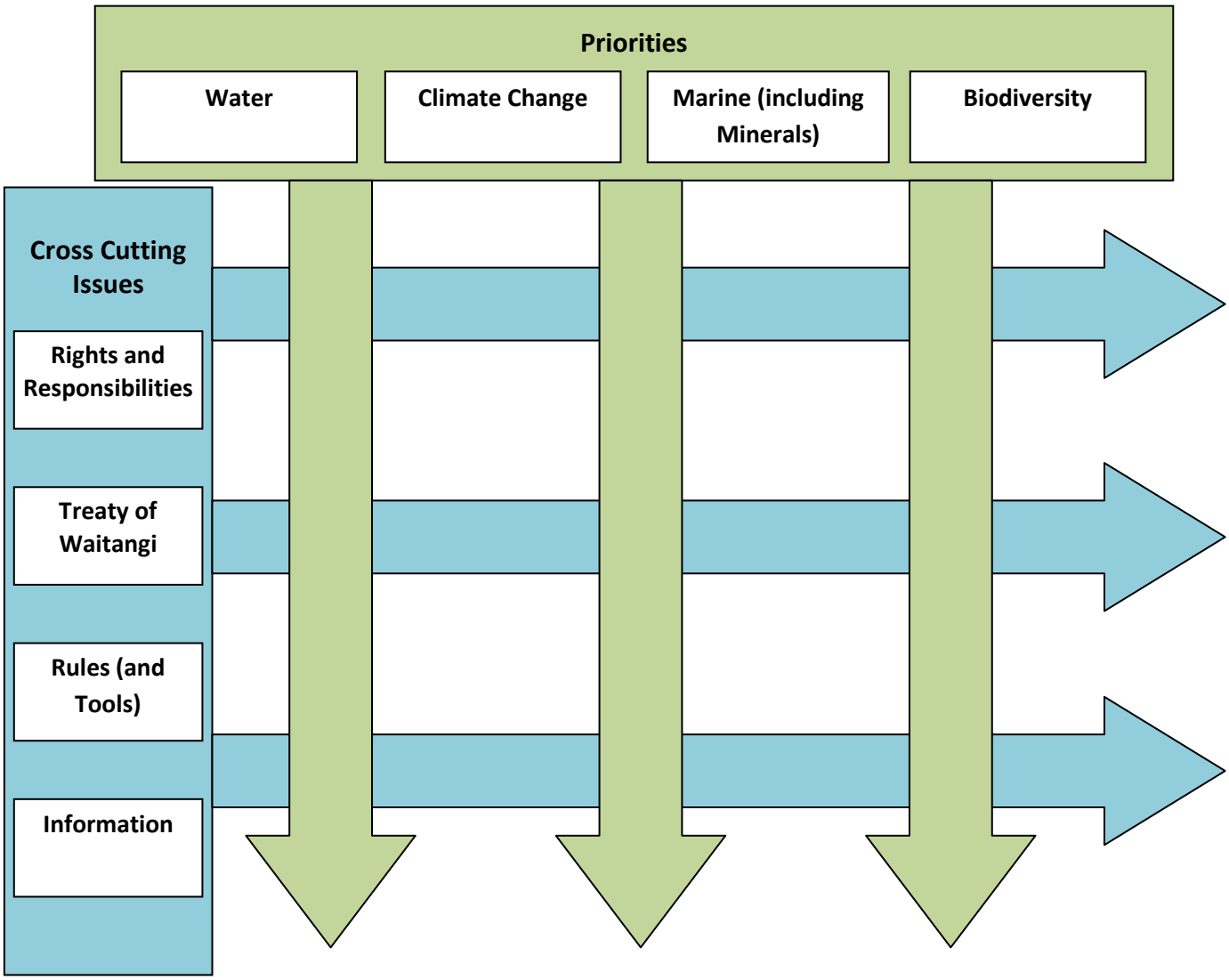
Section A: The Economy and Environment Story

- A high-level description of how important both the economy *and* the environment are for New Zealand. This first section creates a strategic framework for natural resource policy in this country.

Section B: Where We Are Now

- A summary outlining how we are currently doing in terms of getting better economic return from our natural resource assets by improving the value we get from their use.

Section C: Where to focus attention for the next three years



Section D: The Natural Resources Sector Cluster

All six agencies actively participate in the work of the NRS, adopting a collaborative ethos which focuses on forming a common understanding of strategic issues and delivering on shared goals, including:

- coherent governance and improved quality of policy advice on important natural resource issues;
- efficient and effective use of resources by improving processes and collectively getting the best from our people; and
- building a capable sector.

Section A: The Economy and the Environment Story

Importance of the environment in the economy

New Zealand's economy is dominated by industries that rely on natural resources: agriculture, fisheries, forestry, minerals and tourism. How we use, re-use and manage these natural resources therefore has implications for our future prosperity.

In some markets, export goods are increasingly being judged not just by the quality of the end product but also by the integrity of the production process. This means that the bar is being raised for our producers in some markets as regulators, retailers and consumers demand higher standards of environmental performance and verification. Business already recognises the importance of sound government processes for better managing our natural resources, and the role that business plays in transparently demonstrating this to customers.

Managing the interaction between the economy and the environment is central to New Zealanders, with natural resources holding a central place in our national identity, including Māori concepts of kaitiakitanga (guardianship). New Zealand aims to increase its economic performance and improve the standard of living of all New Zealanders, so the decisions made about how we use our natural resources are of increasing importance. Where environmental limits are being reached and resources are becoming increasingly scarce, there is a greater urgency to take action than was previously realised.

Any increase in economic performance from the use of our natural resources needs to be permanent, enduring and sustained.

Māori and kaitiakitanga

Iwi/Māori draw identity and whakapapa from the environment and exercise kaitiaki responsibilities over land and resources. These responsibilities encompass the need to protect and enhance a range of values associated with the environment, and to provide opportunities for the well-being and economic growth of present and future generations. Māori values, informed by tikanga (customs and practices) and mātauranga (knowledge), have a significant potential to achieve a better balance between the environment and the economy in New Zealand.

What we need to do

The core challenge is to get a better long-term economic return from our natural resource assets by improving the value we get from their use. Specifically, we need to develop systems that enable us to:

- **allocate** scarce natural resources among competing uses and users, taking into account Māori rights and interests, social preferences, scientific and other evidence, and environmental limits − decision-makers need to monitor and be ready to adjust limits as values and circumstances require

- ensure **more efficient resource use** by properly reflecting the full costs and values of our natural resources so that scarce resources are targeted at higher-valued uses − this is essential for addressing the growing allocation pressures in some sectors (eg, water, coastal marine space, fisheries)
- **innovate** to improve the long-term performance of the economy by the way we use natural resources − innovation is as much about finding new and better ways of doing things as it is about developing new technologies in a laboratory, and this will involve the sector better leveraging off our science and innovation systems (eg, the Primary Growth Partnership, the Global Research Alliance)
- build enduring **institutional arrangements** that are transparent and informed, and which inspire confidence and investment certainty − this requires investment and new policy and practices in information, capability and capacity building, and in institutions.

The implications

This means we need a coherent and integrated approach to natural resource management, which adapts to changing circumstances and addresses emerging pressures, including resource scarcity. This approach is likely to require new and different institutions and policy instruments that:

- understand and provide for complexity of values, manage the tension between economic and non-economic values, and ensure that all those with an interest in a resource are effectively involved and have confidence in the decisions being taken
- effectively manage the complexity of the natural environment, including the cumulative effects of our past, current and future uses − if we don't do this, we risk resources being poorly or over used, leading to unexpected, large and irreversible consequences
- give effect to the Crown−Māori relationship under the Treaty of Waitangi − this includes recognising and providing for rights and interests in natural resources, and further developing governance arrangements at the national, regional and local levels, particularly in light of Treaty settlements
- collect and use information efficiently and recognise gaps in knowledge, so that management can be based on reasonable predictions and allow for the probability that those predictions may be wrong
- enable resources to go to the best use, both now and over time, and also incentivise innovation and support investment certainty.

Section B: Where We Are Now

To help us to identify the priority issues (see Section C), we considered the range of natural resources in New Zealand in the context of the key issues and pressures highlighted in Section A. The analysis highlighted the fact that New Zealand's institutions are generally well developed, although the balance may not yet fully maximise the economic value of our natural resources.

There are still some challenges, however, linked to unclear accountabilities and responsibilities, compounded by a perceived lack of connection between the economy and the environment, and these have stymied crucial decision-making at the central and local levels.

Recent changes (eg, Resource Management Act and aquaculture reforms) are a step in the right direction. As we start to consider the complexity of, and interrelationship between, our natural resources we will need to ask whether the Resource Management Act provides for the kind of limit setting and allocation mechanisms we want to see. We should also consider whether the RMA aligns with the wider range of tools we use, such as the Emissions Trading Scheme.

To achieve real change in some of these difficult long-term issues we will need to reframe the debate within the context of the economy *and* the environment, and the next section of this BIM identifies where we think you should focus your efforts. Taking a consistent approach across natural resource issues will help to maximise the mutual benefits that can be leveraged from one asset into another (eg, increased freshwater quality has benefits for the marine environment).

The analysis, categorised by natural resource asset, is summarised below.

Natural resource asset	Summary of analysis
Freshwater – quantity	• New Zealand's water availability per capita is the third highest in the OECD. Despite this, there are times when some areas face shortages or restrictions. • The level of groundwater over-abstraction is a concern in some areas. • Limit-setting processes are variable: only about 50% of catchments have flow limits for surface water, with some over-allocation. • Water is allocated on a first-in-first-served basis across most of the country. • Allocated water does not necessarily reach the highest-value uses because of an absence of reallocation mechanisms. • There is good existing information for surface water but more limited information on groundwater. However, there are improving tools and systems for using information (eg, the Water Measurement and Reporting Regulations).

	• Some regions are using stakeholder-based processes to inform quantity planning decisions (eg, the Canterbury Strategic Water Study). • A range of industry codes of practice and water user groups are being used to improve water demand management.
Freshwater – quality	• Water quality in New Zealand is good by world standards, but there is evidence that some rivers and lakes are deteriorating as a consequence of pollution, particularly in areas where there is intensive agriculture. • Setting and enforcing limits on the sources of diffuse impacts on water quality is difficult. • Few catchment-level water quality standards are currently set. • Managing water quality, especially diffuse sources, is complex and creates difficulties for all stakeholders. • A range of industry and voluntary initiatives are in place to improve water quality outcomes (eg, the Dairying and Clean Streams Accord, Landcare Trust initiatives, and industry codes of practice such as the Fertiliser Code of Practice, Spreadmark and Fertmark).
Climate	• There is likely to be uncertainty for some time over post-2012 international agreement and arrangements, but long-term drivers to reduce greenhouse gas emissions remain valid. • The New Zealand 2050 target has been gazetted: 50% reduction of 1990 levels. • New Zealand emissions are increasing, with increasing complexity arising from the nature of the New Zealand emissions profile. • The Emissions Trading Scheme (ETS) is the central domestic measure, although not all sectors (and their emissions) are included (eg, emissions from animals). Further complementary measures are needed to meet long-term targets. • The focus domestically has been on the ETS: not much effort has occurred on adaptation. • The easy measures have been taken, and there are difficult decisions ahead (hearts and minds). • There are a number of co-benefits arising from emissions control (eg, afforestation for carbon sinks has benefits relating to erosion prevention, water quality and biodiversity).
Marine	• New Zealand's marine waters (the Exclusive Economic Zone and Territorial Sea) comprise 4.4 million km ² and 15,000 km of coastline, and include a diverse range of ecosystems. The allowable fisheries commercial take is 609,843 tonnes; the actual take is 418,304 tonnes. • Competition for space among different activities is increasing. • Fish stocks are generally well managed and are supported by approaches such as limits on protected species and creation of marine reserves. • There is a variety of competing interests and values, and no overall framework to drive efficiency across the different laws. • The connection between management arrangements is poor (eg, RMA and wild fisheries management).

	• RMA coastal plans cover some aspects and values, but not spatially, and this is a big gap in current management arrangements. • The default RMA allocation mechanism of first in first served constrains the reallocation of marine space to higher-value uses, whereas with fisheries the quota is tradable and therefore allows reallocation to the highest-value use. • There are challenges around the reconciliation of rights to marine commons, with private use of space. • The absence of coastal charging under the RMA means the Crown does not generate a return from the private use of public space.
Minerals and petroleum	• The mineral estate is a significant national asset, and there is the potential for large long-term contributions to economic well-being. • The annual production value of petroleum, coal and minerals is about $4.2 billion, which should increase significantly in the coming years. • Information on mineral and petroleum resources is patchy, although efforts are underway to improve this (including the Petroleum Knowledge Investment Strategy) in order to guide Government investment in pre-commercial information (including seismic data). • There are a number of management issues in terms of capability for central government, and also a role for Māori in decision-making. • There have been strong stakeholder responses, but the polarisation of views and the issue itself limit the ability to have a credible debate. • Issues have arisen around the level of consultation with Māori on applications.
Biodiversity	• Native biodiversity is continuing to decline, despite current efforts and investment levels. • International outcomes and targets have been set through the Convention on Biological Diversity. • Domestic arrangements and outcomes have been set through a range of legislation, including the Conservation Act (including concessions), the Resource Management Act, the Biosecurity Act and the Forests Act. • The current toolbox is narrow: the main tools involve deterrence, with few positive incentives. • Voluntary mechanisms are successful at the local level but are not widespread (eg, QEII Trust and the Fiordland Guardians). • Ecosystem services and values not well understood, and there are no mechanisms to take them into account.

Section C: Where to Focus Your Attention for the Next Three Years

Introduction

The natural resources sector faces some challenging issues that will not be resolved in the short term, but there are areas where we can make a difference during the next term of government.

Continuing the work that is already underway in the areas of **water** and **climate change** will be essential. There are also new areas of work to explore that have the potential to further enhance New Zealand's economy and environment in the areas of **marine**, **biodiversity** and **minerals**.

We also need to be mindful of the interconnected nature of our natural resources, which means that decisions made in one area have effects on other areas of work. This is particularly true when considering issues relating to **rules, rights and responsibilities**, the **Treaty of Waitangi** and **information**.

Water

Overview of water issues

Productivity from current use is limited and New Zealanders' values are not being met

Fresh water is a key strategic and productive asset for New Zealand. For example, managing water more efficiently through irrigation has the potential to increase agricultural exports by over $4 billion per annum by 2026. Water also plays an important role in providing our renewable energy, with 76 per cent of electricity supply from renewable sources in 2010 coming from hydro power.

However, with significant increases in demand, many areas face shortages or restrictions on use, and there is evidence that water quality is deteriorating as a consequence of pollution. Improvements to the current regime are required to reduce lost productivity and the escalating costs of clean-ups, while optimising water's economic value, providing more certainty to investment and delivering on New Zealanders' values and expectations.

More active and flexible management of the resource, based on operating within set limits for allocation and contamination, will drive efficiency and productivity gains and create incentives for more valuable, resilient and innovative uses of the water available. This can be achieved without a complete redesign of the resource management frameworks.

The change process has begun and has benefited from collaborative policy development

The Land and Water Forum (LaWF) process has been a successful exercise in collaborative policy development. It has achieved consensus on high-level policy directions in the Fresh

Start for Fresh Water (FSFW) programme, including the need for a limits-based approach to water management. It has been asked to undertake further work on a set of broad policy issues that still need reconciling between key stakeholders, including water governance and setting limits. It will be critical for us to take advantage of the momentum the LaWF process has generated, and the next three years will provide an opportunity to gain some substantial wins for water policy.

The National Policy Statement for Freshwater Management 2011 requires limits to be set, and the FSFW Clean-up Fund will provide targeted funding for major projects to restore waterways affected by historical pollution. The Irrigation Acceleration Fund addresses supply-side and reliability constraints and will leverage better environmental performance.

Collaborative policy development may provide a model for dealing with other systemic policy problems

The role of LaWF may provide a precedent for the broader resource management framework. For example, the management of marine resources is a complex issue that may benefit from a collaborative process. Proposals emerging from the LaWF process may have implications for local government reform. For example, you may need to consider whether new regional council decision-making arrangements that may emerge from a collaborative policy development process should apply to other RMA decisions.

Key issues and work priorities, 2011−2014

Setting limits

The process of setting and managing limits is difficult for decision-makers because it requires accommodating multiple and often competing values. The aim is to ensure that decisions achieve the best possible consideration of community, regional and national values while being timely, cost-effective and less adversarial. This is possible under the current legislative framework, but it is not occurring widely (especially for quality limits). To do so we are likely to need changes to who participates, the roles of national versus local limit-setting processes and the role of the courts in value-based decisions. Regional council decision-making processes (particularly iwi involvement) should be the first priority for reform.

Managing within limits and allocating water more efficiently

There are significant lost opportunities resulting from an inefficient water allocation regime. We need to move beyond default administrative allocation (first in first served) to ensure water achieves its best-value use. This will involve considering the role of market-based instruments, including pricing. There is also a need for more effective tools for managing the transfer and efficient use of water, and for managing the effects of land use on water quality. Central government will have a role to play in establishing the right incentives and regulatory framework, but communities and users will need to implement changes to existing practices.

Iwi/Māori rights and interests

Reform will not be achievable without iwi/Māori buy-in. To meet Treaty obligations and unlock the potential of alternative allocation regimes, issues relating to iwi rights and

interests need to be resolved. Although a wider discussion with Māori is required, the Iwi Leaders Group has been an important partner in the policy process. Its mandate for cooperative engagement with the Crown may be challenged unless there is meaningful discussion. This will require conversation between iwi leaders and Ministers alongside improving iwi involvement in regional council decision-making processes. The reforms will also need to protect the arrangements already agreed upon through the Treaty settlements process.

Climate change

Internationally

Many environmental issues have clear domestic boundaries, whereas climate change is a global issue with international drivers. We continue to strive for a single comprehensive global agreement that limits warming to ≤ 2°C and involves all major emitters and industries.

We face an uncertain international legal environment where there is a real risk of an extended delay in reaching a comprehensive agreement. Yet there is an imperative to act, and New Zealand needs to prepare now for the expectation of having to meet long-term emissions reduction commitments. We will face a wider range of international expectations that need to be factored into our positioning, and our international competitors are already taking action to reduce their emissions.

The key is balancing the short-term economic costs of acting now against New Zealand's long-term economic interests. We do not want our action to commit us to proportionally higher costs than other countries, except where they lead to demonstrable longer-term benefits.

A challenge is how to turn our current conditional emissions reduction target (to reduce emissions by 10 per cent to 20 per cent below 1990 levels by 2020) into a political commitment during the transition period to a comprehensive agreement.

Domestically

New Zealand's emissions profile presents ongoing challenges. Almost half of emissions are from agriculture; forestry emissions fluctuate throughout the harvesting cycle, creating potentially significant liabilities after 2020; and energy/transport emissions have increased 33 per cent since 1990.

The Emissions Trading Scheme (ETS) is currently New Zealand's primary tool to manage emissions. The key issue is how quickly the ETS's economic impacts should increase after 2012, balancing short-term international uncertainty against the long-term drivers of a lower-carbon economy. Forestry provides opportunities, but given the cyclical nature of forestry emissions this is only a temporary fix. In the medium term other sectors will need to reduce emissions while still remaining competitive. Although it may be appropriate to mitigate the price signals under the ETS in the short term, sectors will need certainty that carbon prices in the medium term will be sufficient to justify the necessary long-term investments.

In addition, the ETS will need to work alongside other measures; for example, those that encourage technology change and overcome barriers to behaviour change. Such measures

include the New Zealand Agricultural Greenhouse Gas Research Centre, continued international efforts through the Global Research Alliance on Agricultural Greenhouse Gases, and energy efficiency programmes.

The physical impacts of climate change due to past emissions and the growth in global emissions in the next few years are now inevitable and we will need to prepare for and adapt to these impacts.

Key issues and work priorities, 2011−2014

You will need to give consideration to, and make decisions in, a number of areas. These include:

International

- developing an **approach to and mandate (Durban and beyond) for New Zealand's goal of a global agreement** and what it should look like (legal form, rules, etc), and consider what approach we should take if there is a transition period without internationally binding commitments
- assessing the benefits and costs of **engagement in regional and bilateral carbon markets** in addition to engaging in multilateral solutions
- developing a response to demands for **international finance** (eg, Green Climate Fund)

Domestic

- making **ETS legislative changes** in 2012, in response to the ETS review and a likely gap in international agreements after 2013
- a **long-term pathway** to a lower-carbon economy, which will involve determining the level of our ambition for domestic and international carbon reduction targets, and identifying opportunities for cost-effective abatement and other measures needed to sit alongside the ETS
- building on the momentum from work in primary sector **adaptation** initiatives and undertaking a fuller assessment to identify the areas where timely action may help reduce future costs and climate-related impacts.

Marine (including mineral exploration and extraction)

Context and opportunities

New Zealand's marine environment is vast, diverse and mostly unexplored. It is also fragmented into different management zones: the Territorial Sea, the Exclusive Economic Zone (EEZ) and the extended continental shelf. These zones are governed by numerous statutes and regulations, and are managed by a number of central and local government organisations. They provide for a wide range of current values and uses, such as fisheries, marine reserves, tourism and oil extraction.

In addition, most of our exports and imports are transported by sea, and we rely on submarine cables to provide our phone services and internet connections – all critical for our

economy. Some of these uses compete for the same space, which creates further tensions for the management of natural resources in the marine environment.

There are considerable opportunities for New Zealand to gain much greater value from its marine resources. For example, we expect that much of our future mineral and petroleum exploration and extraction will occur in the marine environment. However, we also know that the level of public interest in the marine environment is disproportionately higher than the level of public use. For many people any development of our marine environment (eg, fishing, marina developments, aquaculture, mineral exploration and tidal energy) seems to pit the economy against the environment. There is often public scepticism about whether New Zealand sufficiently benefits to compensate for environmental and amenity value impacts.

These perceptions have the potential to undermine the credibility of the tools we use and the decisions we make in the marine environment. Recently, this has to come to the fore after the *Rena* grounding, where a very high level of public concern has been expressed on a range of values associated with the marine environment in the vicinity of the grounding.

Our policy efforts to date have been sporadic. It is likely that significant changes will be required in the way the marine environment is managed in order to take advantage of the opportunities and gain greater value from the marine environment in a fair, efficient and sustainable manner.

The urgency for action stems from the opportunity we currently have to get the right frameworks in place before the pressures or competition for space become more difficult to resolve. There is also an opportunity to build a greater constituency to work through the range of values and uses. A more collaborative approach to decision-making and management could also address perceptions that might currently be hindering resource development and use in the marine environment.

What we need to do

Fair and efficient allocation of resources

The marine area is subject to the interests of a vast number and variety of users. Across the marine environment, access, use and extraction rights are being allocated on a largely ad hoc basis (mostly first-in-first-served), and there are few tools and limited information to evaluate competing uses. This increases the costs and delays for users and does not provide the necessary level of certainty for potential investors. We need improved ways to achieve the best use of resources and manage the cumulative effects across uses.

Integrated management frameworks

The fragmented management zones in the marine environment are governed by more than 18 primary statutes and numerous subordinate regulations, and are managed by a myriad of central and local government organisations. For example, petroleum and minerals operators must gain permits/consents under four separate Acts from three separate agencies. This is further complicated because biological resources don't observe administrative and management boundaries.

The inefficiencies of fragmented regulatory regimes need to be looked at, and improved integration of legal and management frameworks will be an important step towards reducing compliance costs and improving the prosperity derived from our marine resource. We need more sophisticated tools to enable us to have the debate about what resources we use, how we use them and what we conserve.

Inclusive decision-making

The use of marine resources is often contentious, particularly within coastal communities. The result of not adequately addressing these challenges has seen some issues become unhelpfully entrenched and distrust develop. Changing this will require effective engagement with stakeholders and giving effect to the role of tangata whenua in managing marine resources.

Further work is required to investigate how government can consult more effectively with Māori. For example, growth of the mineral and petroleum industries raises issues related to government's engagement with iwi and hapū, both in day-to-day minerals and petroleum permitting activities and broader engagement on policy and Māori economic development.

While any collaborative approaches with stakeholders for marine decision-making will initially take time and investment, this is critical if we are to put in place enduring solutions and increase the overall pace of the policy process.

Improved information to inform decision-making

There is only sparse information to support decision-making on marine and mineral resources. The information New Zealand does have is uncoordinated and spread across government agencies, Crown research institutes, local government and private sector organisations. Some efforts to improve this situation are underway, however, such as the aquaculture legislative reforms, which have increased the level of data available to decision-makers for more robust planning for aquaculture development.

Key issues and work priorities, 2011−2014

You will need to give consideration to, and make decisions in, a number of areas. These include:

- enacting enabling legislation such as the Exclusive Economic Zone (EEZ) Bill to regulate the environmental impacts of natural resource use, including off-shore mineral and petroleum exploration and extraction
- integrating and increasing policy efforts so that New Zealand's marine areas are a productive resource and environmental effects and competing interests are better understood and managed, which will include:
  - considering the full range of marine and coastal rights and responsibilities, values and uses, along with their opportunities/benefits and costs, and evaluating their potential effects on overall prosperity and ecosystem services
  - constituency building to identify the range of values and uses, and also the pressures and opportunities

- developing the information base, including spatial analysis of the pressures in the marine environment and the spatial planning/management responses required to address those pressures
- incorporating the relevant findings of the Oceans Governance Project currently being undertaken jointly between the public sector and Victoria University of Wellington
- making recommendations on the requisite changes to the current management arrangements.

- engaging and consulting with iwi on how we should manage and develop our marine environment, including mineral and petroleum resources.

Biodiversity

The importance of the issue

The state of our biodiversity is a key indicator of the health of our ecosystems and the services they provide, which underpin New Zealand's prosperity and well-being.

New Zealand's biodiversity provides a wide range of 'services', including soil retention, water purification, improving water yield from catchments, sequestering carbon, providing chemicals for pharmaceutical and other uses, fisheries, hazard mitigation (eg, wetlands reducing flood severity), landscape and other amenity values, and tourist attractions. Biodiversity is particularly important in an economy dominated by primary production, through the ecosystem services that biodiversity provides, and tourism, through providing the basis for our international image and brand. Much of New Zealand's biodiversity is also a taonga (treasure) to Māori and is central to tikanga and whakapapa (genealogy).

Biodiversity and ecosystems are valued differently by individuals and groups because of their complexity and the range of values they provide. This generates tensions and conflict across different sectors about priorities for their use and protection. We also need to bear in mind that declines in biodiversity now can reduce our options to get the best outcomes from our natural resources later.

Biodiversity protection and recovery are being achieved in areas under intensive management, but the overall trend in New Zealand outside of these areas is that biodiversity is still declining, and as a result ecosystem services are reduced. Reversing this trend is important if New Zealand wants to continue to prosper as a natural resource-based economy, to meet our international obligations and to retain our international reputation as a clean and green economy and tourist destination.

Reversing the trend and achieving longer-terms benefits will require some policy shifts, increased effort and investment, innovation, and more business and societal interest in safeguarding biodiversity.

Key issues and work priorities, 2011−2014

Many of the immediate issues relating to biodiversity will be picked up by work on other priorities covered above, such as water. However, there are some areas specific to biodiversity that require specific effort, including:

- refining and improving the ways in which land owners can gain greater benefit from the maintenance of biodiversity and ecosystem services
- making further progress on mainstreaming biodiversity into natural resource decision-making and economic development considerations at regional and national levels
- refreshing the New Zealand Biodiversity Strategy to address recent Convention on Biological Diversity (Conference of Parties 2010) goals and to bring in concepts and processes that more explicitly link the economy and environment in order to guide whole-of-government action
- continuing to develop more collaborative planning and/or management approaches and applying these to biodiversity and ecosystems, particularly in the marine environment, where sector approaches and lack of information on cumulative effects and management outcomes are most apparent
- improving methods for identifying and valuing ecosystem services, and including these in planning and decision-making on natural resource management.

Common trends among the issues

If you look across the priority topics you will notice there are a number of common trends. While we would not consider these trends to be priorities in their own right, they are important to the sector and are significant enough that addressing them within any one of the priority topics is likely to have ramifications and set precedents for the others.

Rights and responsibilities

The economy and the environment are indivisible, and this creates complexity – the rights and responsibilities in relation to natural resources need to take this into account. The challenge is getting the correct balance of, and reciprocity between, rights and responsibilities.

When referring to *rights* in the natural resources sector, we are mainly referring to property rights: the socially sanctioned relations between people and scarce or valued assets or resources. Property rights include rights to discharge/pollute and the wider set of 'use' rights, such as in-stream values for water. There are also rights relating to having the mandate and ability to manage natural resources.

Tensions inevitably arise due to differing expectations of who has rights, what those rights are and how they bump up against management rights. The collaborative approach of the LaWF has teased out the high-level issues around all of these rights for water quantity and quality, and has also shown how this collaborative approach could be used for other topics, such as the marine environment.

The *responsibilities* are the obligations that go with resource use. These include responsibilities around decision-making for resource management, such as setting limits and allocating between different uses. For example, in relation to biodiversity, there needs to be greater clarity about the management responsibilities among central government, local government and resource users. The tools used by these different players need to be

complementary in order to provide incentives for improved biodiversity management. Public expectations about being integrally involved in the limit-setting and allocation processes is further adding to the complexity and difficulty of some of the issues in this BIM, such as minerals. Many of the social norms, legislative requirements and consenting activities for our natural resources could be stronger on the custodial responsibilities that go with resource use.

The complexity of the relationship between the economy and the environment places a greater onus on government to ensure the rights and responsibilities create the right incentives to achieve the mix of outcomes we are seeking. Aquaculture is an example where the reform process has created the allocation mechanisms to reduce uncertainty and manage transaction costs. This enables investment to help allow aquaculture to achieve its full economic potential.

Treaty of Waitangi issues

The Crown-Māori relationship, underpinned by the Treaty of Waitangi, is central to the management of natural resources and New Zealand's identity, social cohesion and economic prosperity.

Challenges

The current legislative framework provides for Iwi/Māori involvement in resource management but also allows considerable discretion as to how provisions are implemented. As a result, there has been criticism that the institutions and legislation for managing natural resources are not adequately involving Iwi/Māori, as Treaty partner, in decision-making processes.

Iwi/Māori are seeking more active and certain roles in resource management. Treaty settlements provide opportunities for innovative solutions tailored to the circumstances of a particular resource, iwi and region. A generic approach, provides opportunities to ensure more consistency, cost effectiveness and certainty and avoid the need for claimants to raise contemporary issues in historic settlement negotiations. Giving a priority to the development of generic policy will ensure a wider range of options are available for effecting change because of the pace of settlements.

Priorities

Progress on Treaty of Waitangi issues will help maintain a Crown-Māori relationship based on partnership and mutual advantage. This will enable New Zealand to better capitalise on the significant economic growth opportunities our natural resources provide. Key priorities for the next 3 years include:

- **Rights and Interests:** As there is a growing focus on the allocation of scarce resources, there is a need for the government to work with iwi/Māori towards clarifying and recognising Iwi/Māori rights and interests in natural resources. The need to resolve rights and interests in natural resources is essential to unlock the potential of alternative allocation mechanisms (e.g. market instruments).

- **Governance:** There is a need to continue to develop governance arrangements over natural resources that better reflect the Treaty partnership at the decision-making level. Opportunities to grow capability will also help strengthen governance arrangements.
- **Engagement:** Addressing complex issues in the sector must be done through ongoing and effective engagement with iwi./Māori. The Government is increasingly engaging with iwi at a high-level through issue-specific Iwi Leaders' Groups. This has provided valuable dialogue and information sharing. Engagement with iwi/hapū can be further enhanced through developing consistent and transparent approaches to engagement with iwi leaders' groups and recognition of the importance of wider engagement with iwi/hapū on natural resources issues.

Rules (and tools)

Once you understand the rights and responsibilities in relation to a particular natural resource, and are clear on the Treaty and Crown responsibilities in relation to iwi/Māori, the challenge for managing that natural resource is to create the right set of rules. These rules can take many forms – from the formal (such as regulation), or less formal (such as codes of practice), through to the informal (such as social conventions or norms). You will need to match the tools and incentives to the behaviour changes you are seeking from those involved, and the outcomes sought.

In the natural resource sector a variety of rules and tools are needed. The approach taken on one natural resource can set precedents for others, but may also offer opportunities for achieving co-benefits. For example, climate change has a mix of tools based primarily on the ETS, but the challenge is to have a sophisticated and complementary set of tools (eg, making sure the ETS as a market mechanism better aligns with the regulatory approaches in the RMA).

When considering rules we increasingly need to take into account whether the current approach in the RMA provides for the kind of limit-setting and allocation mechanisms we want to see and how we manage the tensions between devolution and direction from the centre. Another issue to work through is the benefit of spatial planning, or catchment-based land planning, to integrate the many objectives and outcomes sought, as opposed to using individual effects-based consent applications. Recently this debate has been played out during the establishment of the Auckland Super City and its spatial plan, although the usefulness of spatial planning is not confined to urban areas. There is an opportunity to consider this approach for some of the more complex natural resource policy changes, such as the land and freshwater interface.

Having access to a wide toolbox (eg, regulatory tools, economic instruments and collaborative approaches) will help us to choose the right tools, and as a result is more likely to succeed − at lower cost. For example, in the marine environment the RMA alone will not be an effective tool to deliver on the wide range of outcomes we are seeking, covering mineral exploration, fisheries management, biodiversity management and amenity issues. The tensions between these outcomes mean that we need the full range of statutes, instruments and tools to deliver an integrated approach that balances the rights and

responsibilities of the diverse set of stakeholders. This enables us to get the greatest net benefit for New Zealanders over time.

Information

Information is a critical part of the policy process, and a common trend across natural resources is absent or insufficient information. Reliable data collection, analysis and management are needed to improve the evidence base, but the complexity of natural systems, and the interrelationships between these systems, means there will never be complete information available. What we need is enough information so that we can effectively manage resources to deliver the best economic and environmental outcomes.

The current levels of data are variable for each of the priority topics identified in this BIM. Because of our international reporting requirements climate change has the better information. For water it is more variable, although the situation is improving through mechanisms such as the National Policy Statement on Freshwater and the Water Measurement and Reporting Regulations.

The plans to introduce an Environmental Reporting Bill will ensure that national state of the environment reporting is regular and independent, and will improve the consistency of monitoring statistics at the local level and give us a more accurate picture of the state of our natural resources.

The current government commitment to 'open data' will also increase the evidence base for existing and future information sources, although open data is likely to increase the level of contention around what the information is telling us.

We also need to be smarter about how we commission and collect new information. The cost involved in collecting new data is often cited as a reason for the poor levels of data, so we need to prioritise our needs to make sure we collect the right information.

The natural resources sector is using its collaborative approach to both share and jointly commission research and information gathering. This involves collaborating beyond the National Resources Sector cluster (NRS) with other central government agencies, as well as the Crown research institutes, universities, industry and the public. This approach will ensure that our information needs are prioritised and coordinated, with resources being allocated to the most important areas.

Section D: The Natural Resources Sector Cluster

Background

The Natural Resources Sector cluster (NRS) was established in 2008 to provide consistent, high-quality, policy advice on natural resources. As this BIM has highlighted, the challenges posed by New Zealand's natural resource issues are bigger than any one agency can tackle on its own.

The core agencies (the Department of Conservation, Land Information New Zealand, the Ministry of Agriculture and Forestry, Ministry of Economic Development, Ministry for the Environment, and Te Puni Kōkiri) actively participate in, and adopt a collaborative approach to, work on natural resource policy. The core agencies have recently been joined by the Ministry of Science and Innovation. The NRS is supported by the three central agencies: the Treasury, the Department of the Prime Minister and Cabinet, and the State Services Commission.

A critical role of the NRS is to bring the expertise and perspectives of the individual agencies to the table so that the advice we provide is of a high quality, is integrated, and provides Ministers with a fuller, more comprehensive picture of natural resource issues and the implications of different policy choices.

What the NRS is seeking to achieve

The NRS uses its collaborative ethos to focus on forming a common understanding of strategic issues and delivering on shared goals. Ultimately our aim is to provide high-quality policy advice on some very complex, difficult and intractable issues. The dynamic and variable nature of the policy issues we are working on means that we need adaptive and smart policy responses, drawing on the most robust and complete evidence available.

As a sector our focus is on:

- developing and disseminating the 'economy and environment principles' – a framework to help analysts working on natural resource policy to take into account different perspectives and the links between the economy and the environment
- disseminating and building a constituency for a long-term vision for the economy and the environment
- embedding a culture of early engagement (particularly around problem definition) to enable issues and solutions to be more thoroughly identified and common goals to be achieved
- providing a coherent governance framework around current priority issues, as identified in this BIM (water, climate change, etc)
- building an enabling environment in which we share knowledge, skills and services.

Building an enabling environment

As well as collaborating on key policy areas, we are working collaboratively to create the right environment to support our efforts. The NRS is able to draw not only on economies of scale from looking at shared services collectively, but also on the economy of skills available (and the wider variety of expertise and talent across the NRS agencies). Here is a selection of our work in this area.

Leadership and management development

The NRS is exploring systems that enable talent to move easily across the sector. This has included shared investment in formal and informal learning opportunities and establishing a common view and expectations of leaders in the sector. Our aim is to have:

- a pool of capable employees, at all levels, to take on leadership challenges across the sector
- leaders that can speak on behalf of the NRS
- reduced barriers to collaboration across agencies
- minimised duplication of effort and costs, so value for money is increased.

Strategic policy capability

We are looking at ways to ensure the NRS has the capability and capacity to deliver on our 'thought leadership' role, to develop policy responses to medium- and long-term issues, and to reduce any duplication across NRS agencies. We aim to develop collective advice and solutions so that we better understand the challenges facing the NRS and the New Zealand economy.

Strategic finance capability

To address the imperative for NRS agencies to take a more strategic and collective/collaborative approach to financial management, we are building capability in this area and are also looking at all non-departmental contestable funds within the NRS to give us a better picture of what we are investing in collectively and the outcomes we want to achieve. This work will enable us to look beyond agency boundaries when we consider budget priorities.

Key issues and work priorities, 2011−2014

The NRS will continue to build on its achievements through a work programme that includes:

- continuing to improve our policy responses to natural resource issues, in particular how the economy and the environment interact
- greater fluidity of policy capability (ie, making sure the right skills are allocated to the right priorities)
- investigating ways to get better effectiveness and efficiency gains from our information services (aligned to the wider government open data initiative)
- greater collaboration between the sector and regional government.