

HITTING THE MARK

Our Strategic Plan to 2045



Ministry for the
Environment
Manatū Mō Te Taiao

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Message from our Chief Executive

We live in one of the most incredible places on earth, with an exceptional natural environment. It's one of the things we love about living here, and it underpins our way of life.

And we can't take it for granted. All of these things depend on healthy and productive land, fresh air, clean and accessible lakes, rivers and seas, and the wildlife found only here in Aotearoa.

The Ministry for the Environment's job is to make sure our environment supports New Zealand's prosperity – economic, social and cultural – without compromising it for future generations. We call this environmental stewardship, and it's really important.

Being a good steward means we need to take a long-term view, because typically the full implications of the choices we make only become clear generations later. You can see this today – serious erosion on the east coast of the North Island is a legacy of European settlement, when large tracts of bush were converted to pasture. In Canterbury, the effects of development a hundred years ago are still working their way through the waterways.

In the same way, the choices we make today will impact on the state of our environment, and the quality of life enjoyed by New Zealanders, decades from now. That's why it's so important for the Ministry to have a long-term strategic plan.

This document lays out our aspiration for the environment in 2045, and how we're going to get there. Of course we can't do it alone. It should come as no surprise that a key feature of this plan is collaboration. To be successful we must work together with a range of partners – Māori / iwi, businesses, environmental groups, local and central government, research institutions, and the general public, to find answers that work for everyone.

Within government, the Ministry is part of the Natural Resources Sector, a group of agencies responsible for the policies which govern how we use different parts of the environment. It's important for us to work well together, in a way that's consistent and makes sense to everyone affected by government policies because that way, we achieve more.

Ultimately the trends we see in our environment reflect the sum of the choices all New Zealanders make every day. They reflect a collective impact, and will require a collective response.

A big part of the Ministry's role is to bring people together, remove barriers for people to be involved, and provide the evidence people need to make more informed choices and good decisions.

So this isn't just a strategic plan for the Ministry. It's for every New Zealander who cares about our environment. The work we do together today will help us continue to thrive on our lands for generations to come.

Ko te taiao he taonga tukuiho mo apopo. Our environment is a treasured gift that we inherit for the benefit of tomorrow.

I'm looking forward to working with you.



Vicky Robertson
Chief Executive and Secretary for the Environment



Purpose of our Strategic Plan

Our Strategic Plan to 2045 sets out how we will ensure ‘environmental stewardship for a prosperous New Zealand’. It is about what we are seeking to achieve, why this is important, and the approach we will take.

The strategic plan guides what we do and where we will direct our focus. It is a plan for the Ministry for the Environment, not a plan for the wider environmental sector. It outlines how we must shape our organisation and culture so we are able to deliver our goals.

The strategic plan is high level and aspirational, and does not cover all of our functions, or every objective we aim to achieve; but it does clearly outline our future direction.

The audience for this strategic plan is broad. It is for our staff, and stakeholders who have an interest in what we are seeking to achieve.

The strategic plan has been developed with extensive involvement from teams across the Ministry. This process helped identify the key environmental issues we need to address and the direction in which we want to travel. It also determined our shared outcomes, the potential actions we will take to deliver them, and how they will be measured. The plan is underpinned by a comprehensive domain-based outcomes framework that includes intermediate outcomes and targets to track our progress over the next 5, 10 and 30 years.

We will implement the strategic plan through our four-year plan, which sets out the key areas of work we will undertake on a year-by-year basis to deliver the outcomes we have set.

We will formally review and update this strategic plan and underpinning outcomes framework every three years, following the release of the *Environment Aotearoa* synthesis report, to ensure the vision it sets out, the outcomes it seeks to deliver, and the strategic priorities and organisational development areas remain relevant and challenging.

Our strategic plan in action



The New Zealand environment

New Zealand's geographic isolation and the long period without human habitation allowed a unique natural environment to flourish. Our environment is known for the richness of its biodiversity, with more than 80,000 species of native animals, plants, and fungi. Much of our native flora and fauna are not found anywhere else on earth.

The environment is important to New Zealanders for many reasons. At the most fundamental level, the environment supplies our basic needs: clean air, water, food, and a place to live. Much of our international competitive advantage lies in the quality and quantity of our environment and natural resources. Maintaining high environmental standards is essential for market access and New Zealand's economic growth and prosperity.

Our relationship with the environment is also a defining feature of who we are as New Zealanders. This is reflected in the very high area of land set aside in New Zealand (approximately 30 per cent) for conservation and recreational purposes, significantly higher than most OECD countries. The diversity of the New Zealand landscape, and the cities and towns that form part of it, also contributes to New Zealand's unique sense of place.

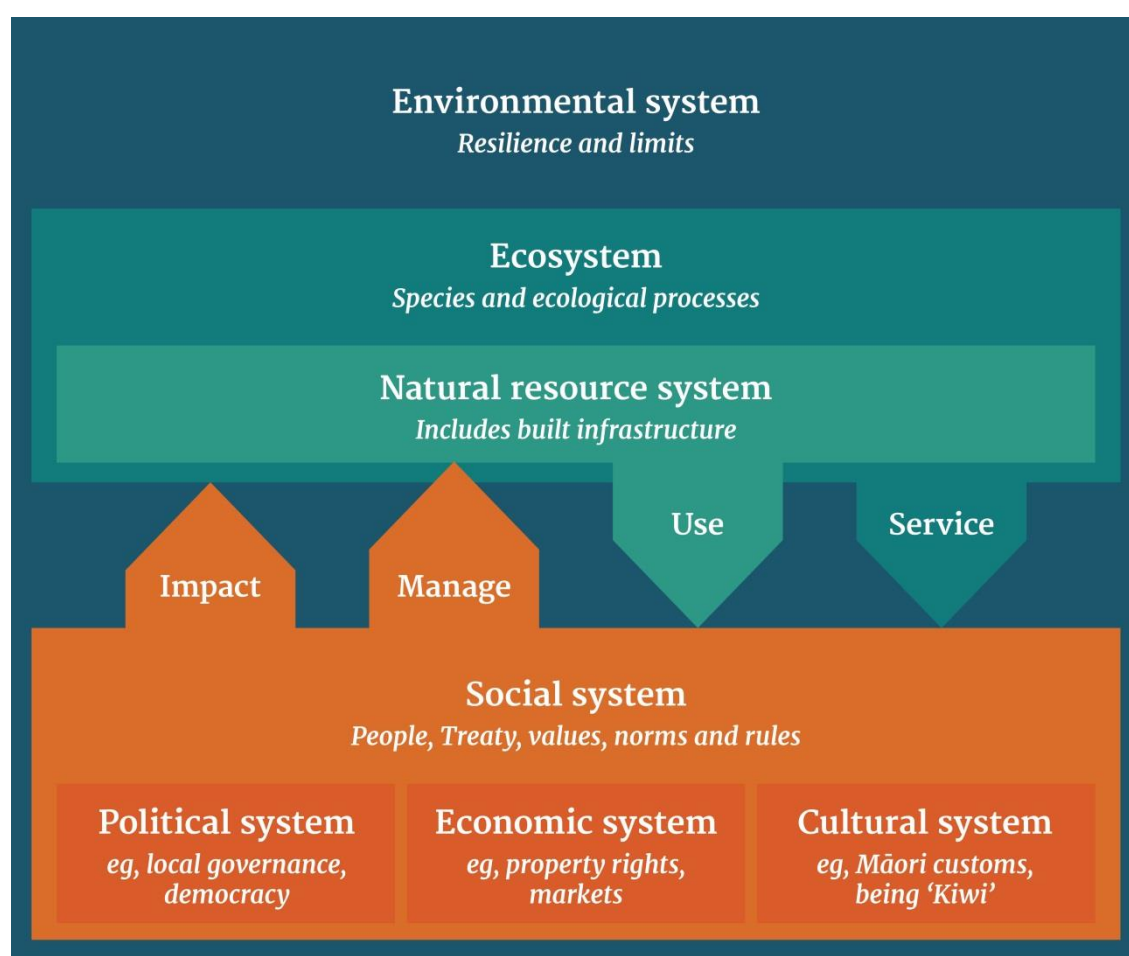
The natural environment confers mana and provides sustenance to Māori. It has shaped the living culture of Māori people, and the Māori culture has in turn shaped the New Zealand environment over many generations. It is the resting place for those who have died, with many features of the natural landscape representing important ancestors. The environment is important to tāngata whenua as a form of personal and tribal identity, a symbol of social stability, and an important source of emotional and spiritual strength.

The environmental management system

The term ‘environmental management system’ describes the numerous and complex interactions and interdependencies between New Zealand’s environmental and social processes (see figure below).

This system is determined, in part, by the biophysical reality of our resources, but also by the way we use, manage, and value those resources. The social system provides us with sets of rules and institutions that we interpret to make decisions about using, managing, and valuing those resources. It is a dynamic system made up of political, economic, cultural, and social drivers.

Environmental management system



New Zealand has a heavily decentralised environmental management system, with local government and the Environmental Protection Authority implementing the majority of the legislation administered by the Ministry for the Environment. The system is also very diffuse. It involves a broad range of participants, and each of those has a different view about how natural resources should be managed to support the economy, conservation, recreation, and customary purposes.

The Resource Management Act 1991 (RMA) is the key legislation for making decisions on the use of resources. As well as managing air, soil, fresh water, and coastal marine areas, the RMA regulates land use (including subdivision) and the provision of infrastructure, which are

integral components of New Zealand's planning system. This means local government, who also have a wider planning role in transport, infrastructure, and economic development, make most resource management decisions.

Ecological systems are constantly changing, as are the demands we place on them. The environmental management system must be able to adapt to changing circumstances. It must be supported by knowledge of what is happening in the environment, including an understanding of behaviour and performance that affects outcomes.

We use a 'domain' approach to understand the different components of the environmental management system. This approach puts a focus on each domain individually, allowing a coherent picture of understanding to be built within each one.

The domains are:

- air – āngi
- atmosphere and climate – kōhauhau and āhua o ngā rangi
- fresh water – wai
- land – whenua
- marine – wai tai
- urban – tāone.

As the issues around our natural resources and how we use them are often complex and contentious, some uncertainty is inevitable. We can never have all the facts. Decisions do not stand in isolation – any action has economic, social, and cultural implications.

The role of the Ministry for the Environment

Our mission is Tiakina te taiao kia tōnui a Aotearoa – Environmental stewardship for a prosperous New Zealand. Put simply, this means ensuring New Zealanders can use and benefit from the environment today, while maintaining its capacity to produce benefits tomorrow.

In practice, this means:

- managing within environmental limits
- ensuring natural resources and the environment are used in the best way both now and over time
- managing environmental risk
- ensuring people are able to make decisions that provide benefits to society and the environment.

The Ministry for the Environment is the Government's primary adviser on how human interactions and uses impact the environment, both nationally and internationally. We set policy on how the New Zealand environment is managed. We advise the Government on the system of institutions, laws, regulations, policies and economic incentives that form the framework for environmental management, as well as monitoring the performance of the system.

To achieve our outcomes, and contribute to the wider environmental management system, we must work with others in an ongoing and proactive manner. We partner with iwi/Māori under Te Tiriti o Waitangi.

Other partnerships also span:

- central government agencies (especially those agencies within the Natural Resources Sector)
- Crown entities
- local government
- business
- non-governmental organisations
- the wider community.

They are all critical partners in managing New Zealand's environment, and we work increasingly closely with them.

In addition to our existing role, we face new challenges. Our role and approach to developing natural resources policy will need to change with this evolving context.

What is prosperity?

Prosperity is more than monetary gain – it includes most things that make us happy and improve our welfare. For example, prosperity can include building healthy and safe urban environments, or ensuring a river can be used for multiple purposes rather than simply using the water for irrigating crops.

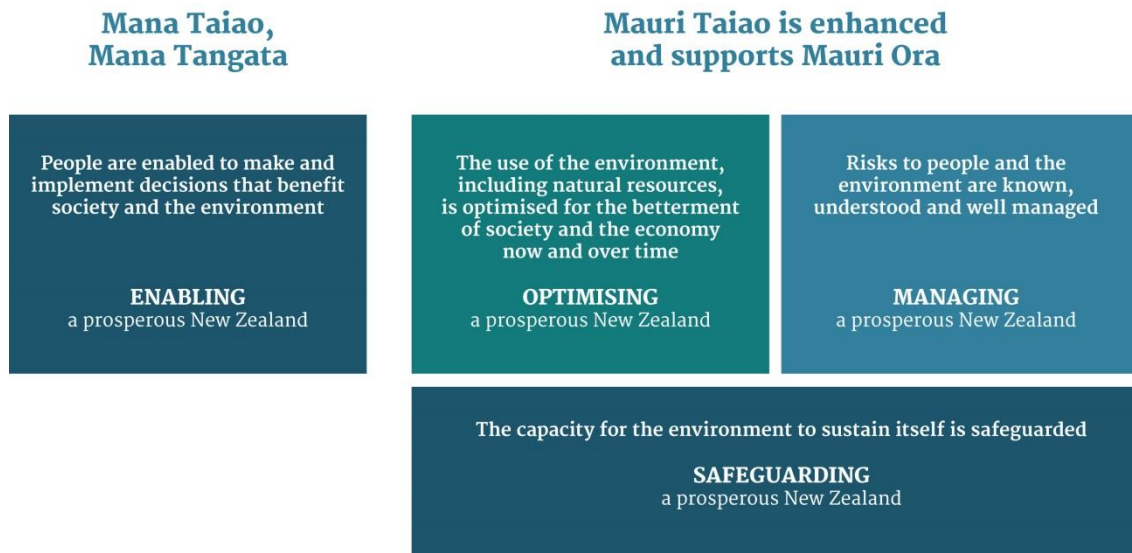
Over the past 30 years, the effects of society on the ecological system have been managed with little national regulation. During this time, we have established a high-level framework for managing our interactions with ecological systems. While guidance, tools, and monitoring systems have been provided, it has largely been left to others to interpret, apply, and measure policy implementation.

There has been growing concern about this devolved, light-handed approach. As a result, we have taken a more active role at the centre of the wider environmental management system, forming strong partnerships with all stakeholders. We are not focusing on just our own role, but also on the success of all those involved in environmental management and all outcomes that are important to New Zealanders.

New Zealand's future economic and social well-being will depend largely on how we manage the increasing opportunities and pressures to get the best long-term value from our natural and built environments.

Our long-term outcomes

These long-term outcomes will guide the Ministry's actions over the next 30 years, and drive environmental change.



These long-term outcomes recognise that our environment is:

- intrinsically valuable
- our life support system
- used to underpin economic development, for both present and future generations
- a finite source of raw materials and resources
- central to our quality of life, sense of place, health and well-being.

These outcomes take a long-term view to 2045. This recognises that biophysical processes relating to the environment generally happen over a generation or more.

For example, the effect of some historic land use is only now being felt. It can take decades for nutrients from farm run-off to reach our lakes, where they cause algal blooms and dense growth of aquatic weeds. It can then take as long as a generation, and often longer, to reverse these effects.

Resolving environmental issues requires patience and perseverance, as they are complex, long-term issues, and have multiple impacts across many different users. Decisions about natural resource use and the environment involve value judgements and require challenging trade-offs to be made. We need to get started now to achieve our long-term outcomes by 2045.

Time lags

Lake Taupō responds very slowly to the many biophysical processes that control the movement of nitrogen from the land to the lake. Because of the lag between what happens on the land and its effect on the lake, it is only in recent years that the impacts of the large-scale land conversions that took place in the 1950s has been seen in the lake.

Evidence estimates that manageable nitrogen loads to the lake must be reduced by 20 per cent to maintain water quality at its current level.

Though action to clean up the lake is under way, water quality will probably continue to worsen before it improves. This is because of the time it takes for the effects of the activities on the land to reach the lake.

Outcome 1

The capacity of the environment to sustain itself is safeguarded

The environment supports our livelihoods and our lifestyles. It provides us with essential ecosystem services including:

- provisioning services (food, fibre, fuel, water)
- regulating services (climate, floods, disease, waste, water quality)
- cultural services (recreation, aesthetic, enjoyment, tourism, spiritual, ethical values)
- supporting services necessary for producing all other ecosystem services (soil formation, photosynthesis, nutrient cycling).

There is a limit to the extent we can modify the environment before we start to put it and its resources at risk. We can tell when this level of damage is starting to occur when we see a decline in key biophysical indicators, such as biodiversity, water quality, or soil health. Historical activities have already compromised the environment's ability to sustain life in some areas of the country.

This outcome reflects the idea of ecological resilience and the environment's ability to tolerate disturbances and restore itself. If we don't ensure the environment can sustain itself, then we risk permanently damaging it. This outcome also reflects the idea that the environment has an intrinsic value separate from people and the ways we use it, and that this intrinsic value is worth safeguarding.

While all of our long-term outcomes should be seen as interconnected outcomes that must be achieved together, the relationship between outcomes 1 and 2 is particularly important. By ensuring the ongoing sustaining capacity of the environment, we also ensure our ongoing ability to access and use the environment to prosper from it. Protecting the base environmental functions should allow us to use the remaining resources to benefit society and the economy.

Outcome 2

The use of the environment, including natural resources, is optimised for the betterment of society and the economy, both now and over time

New Zealand's environment and natural resources provide the foundation for our economic activity. Agricultural commodities account for around half of all exports, and New Zealand is one of the top five dairy exporters in the world. A strong demand for primary products is expected for the near future, especially for food, fibre, and beverages. In addition, the tourism industry, New Zealand's second largest foreign exchange earner, is dependent on our natural environment.

Ongoing access to and use of our environment and natural resources are critical if New Zealand's economy is to prosper. However, managing our natural resources is a complex and contentious, cross-sector, multi-generational issue. Optimising the use of New Zealand's environment will require stable and enduring environmental stewardship.

For environmental stewardship, we need to make ethical choices that balance sustainable resource management with risk management. It does not mean the environment will remain unaltered, but that we consider how development will affect people and natural resources, both now and in the future.

We need to make the most of economic, cultural, and social benefits from environmental assets. For example, we have a role in supporting innovation within high-tech, profitable, and environmentally sustainable industries by being more innovative in our approach to policy design. Another example could be making improvements to environmental planning and resource management to:

- improve access to jobs and services
- improve the efficient movement of goods and people
- provide opportunities for social and cultural interaction.

It is critical that we understand the value and scale of the environmental, social, cultural, and economic impacts and trade-offs for current and future generations.

Our economy relies on the environment

Agriculture, forestry, and horticulture made an important contribution to our economy. In 2014, dairy and meat exports alone accounted for 41 percent of the total value of merchandise exports.

Agriculture provides employment, particularly in rural areas. In 2013, agriculture employed more than 105,500 people, making the sector the second-largest 'employer' in New Zealand.

From New Zealand's ocean fisheries was \$1,419 million, or about 3 percent of our total merchandise export earnings. In 2012, the value of aquaculture exports was \$298 million.

Tourism also makes an important contribution to our economy – our national parks and open spaces are a major attraction for overseas visitors.

In 2012, mining contributed 1.9 percent to GDP, about one-quarter of which is land-based, with the rest marine-based, such as oil and gas.

We generate much of our power from rivers and lakes, with hydroelectric generation accounting for 54.5 percent of New Zealand's electricity generation in 2013.

Source: Environment Aotearoa 2015

This outcome will require decision-makers to take into account:

- the full range of environmental values and uses (cultural, conservation, enterprise, aesthetic, spiritual)
- data and analysis extended over years or even decades, especially where intergenerational effects are significant
- uncertainty in decision-making, including how to balance the risk of making (or not making) decisions given the information available and the cost of acquiring more.

Outcome 3

Risks to people and the environment are known, understood and well managed

Whenever we use the environment, we encounter or create risks to ourselves and to the environment. These risks vary from the relatively constant, to less frequent but high impact events. Risks can impact on air, water and soil, and may result from natural hazards, climate change, or risks from new technologies and substances. These risks need careful management to avoid or minimise negative consequences, and to protect the resilience of the systems.

If we want to continue to use our environment, it is essential that we manage the natural and human-made impacts that affect animal and plant health, wider human and environmental health, well-being, and the economy. For example, as we adapt to the impacts of climate change, we must improve how we protect against floods and tidal surges, change the way we build houses, and ensure our roads and other critical infrastructure services are able to withstand more extreme climate events.

This outcome involves taking action to reduce risks, but it also means taking advantage of opportunities that result from such risks. Using the climate change example again, while some regions will experience more frequent drought, some areas of dairy, sheep, and beef pasture production are likely to benefit from climate change if farm management practices change to make the most of increased pasture production. Farmers could even change the crops and animals they farm to ones better suited to a changing climate. There are also opportunities to improve how we manage and regulate hazardous substances, new organisms, and other scientific technologies to ensure they are flexible and responsive to scientific advances while still effectively managing risk.

We are not seeking a risk-free New Zealand, but a place where risks are mitigated where possible, and decisions about risk are well informed, balanced, and effective.

The risks of a changing climate

Extreme weather events can cause millions of dollars of damage and lead to injury or the loss of life. Extreme weather includes storms that cause flooding or wind damage, droughts, and snowstorms.

In 2014, the Insurance Council of New Zealand identified eight extreme weather events – mainly storms and floods – that caused over \$150 million in insurance costs for damage to homes, businesses, and farms.

Our cultural sites are also vulnerable to climate change. Many sites significant to Māori are in low-lying or coastal areas, which may be affected by sea-level rise or increased coastal-storm activity.

Source: Environment Aotearoa 2015

Outcome 4

People are enabled to make and implement decisions that benefit society and the environment

New Zealanders expect a high standard of living. The recreational and cultural opportunities provided by our environment are integral to our identity. To meet these expectations, we need to set acceptable levels of use that allow us to manage resources within environmental limits.

New Zealanders are also increasingly aware of the substantial cost of reversing harm to the environment. This requires not only money, but also huge local effort, and it takes time for the environment to respond – sometimes decades.

There is growing interest in the way the environmental management system is regulated, and how the system encourages people's participation and input. Efficiency, responsiveness, inclusiveness, fairness, and trustworthiness, help to reassure stakeholders and the wider community that good regulatory processes are being followed, and that the decisions of regulators are robust, well-informed and well-reasoned.

The way society makes decisions affects the environment and impacts all people (from government to the community and individuals). This outcome involves building on our existing environmental management system to ensure it consistently uses evidence and informed participation to formulate options, make decisions, and implement actions about how we use and interact with the environment.

Stable and enduring policy settings must support people to be aware of the impacts of their decisions and actions on the environment, and lead to better decisions over time.

To be effective, policy settings must:

- be supported by society
- recognise Māori values, iwi rights and interests, and Tiriti principles
- deliver outcomes that are widely supported.

This is only possible when all those involved in environmental management understand and are responsive to one another.

Our strategic priorities

Achieving our long-term outcomes means working with others, and ensuring continuous improvement of the way we manage the environment. At a system level, there are both challenges and opportunities.

There are opportunities to create a more cohesive and coherent system

Multiple parties (many with potentially competing objectives for the use and protection of natural resources) and layers of decision-making can produce *ad hoc* outcomes. In many instances, the decision-making frameworks, processes, and governance models of different stakeholder groups are not aligned. Achieving our outcomes relies on purpose and actions that are aligned at all levels.

There is an opportunity to identify responsibilities and to hold parties to account

Sometimes it is unclear where accountability lies in the system. There are questions about who should take responsibility for past decisions from which impacts are only just being felt. Who should be responsible for decisions where the impacts are felt more widely than the person or community that has made them? Achieving our outcomes relies on clarifying accountabilities across the system and supporting people to anticipate the consequence of their actions on the environment.

There is an opportunity to support better decision-making

We can improve system knowledge to support better decision-making. System knowledge is information that has been gathered from experience and refined by analysis, assimilation, and validation. Knowing how the environmental management system works is essential for developing and implementing good environmental policy, and allows us to improve operations and services. Improving access to knowledge and data by making it publicly available will also support people to make informed environmental management decisions.

The following strategic priorities will yield the biggest benefits in terms of opportunities and reducing issues across the system. Making progress on these priorities is the critical first step to achieving our long-term outcomes.

Leadership

The Ministry for the Environment will drive continuous improvement across the environmental management system by articulating a clear view and leading change

To achieve this, we will:

- tackle difficult and contested environmental issues and lead public debate to deliver actions
- set the direction and priorities for the system and understand potential risks and opportunities
- hold key parties to account across the system, including ourselves, through explicit accountabilities and responsibilities
- invest in and use different non-regulatory solutions to incentivise users to better manage the environment
- become more innovative in our leadership and partnership approaches to find solutions appropriate to individual situations
- continue our leadership of the Natural Resources Sector
- ensure our policies are easy and practical to implement for end users and service delivery partners.

Information

The Ministry for the Environment will collect, broaden and communicate trusted information needed to deliver our long-term outcomes

To achieve this, we will:

- build our information and evidence base in key strategic areas, including cumulative effects, cross-domain environmental impacts, time-lag effects, economic impacts, social and cultural values, indigenous knowledge, and risks
- improve public confidence in environmental reporting by producing robust, independent reports using transparent processes and accurate data to which there is open access
- leverage existing knowledge and best practice by improving information sharing with system participants
- work with other agencies and science providers to ensure the data needed is available and is of sufficient quality to support achievement of our outcomes
- embed monitoring and evaluation across the environment system so there is a base of evidence to drive effective policy and track progress against our outcomes.

Demonstrating understanding of Māori world view

The Ministry for the Environment will foster and strengthen tāngata whenua–Ministry relationships, to:

- enable iwi/hapū to undertake kaitiakitanga of the environment
- support iwi to successfully develop their natural resource in ways that make significant contributions to Māori and national growth and are consistent with Mātauranga Māori values

To achieve this, we will:

- work with iwi to foster and strengthen tāngata whenua–Ministry relationships
- invest in our capability around Te Tiriti o Waitangi and the way we engage with iwi/Māori
- ensure planned engagement with iwi at the beginning of our work
- ensure coordinated, outcome-driven engagement with iwi at an appropriate level
- ensure our analysis is based on good information of iwi perspectives.

System capability and capacity

The Ministry for the Environment will build its own capability, and work within the system to support better decision-making

To achieve this, we will:

- increase internal Ministry capability in the areas of leadership, economic impacts, ecosystem services, and natural resource economics
- increase internal Ministry capability in social science disciplines, such as understanding community values, incentives and drivers, and communication
- build the skills and capability needed to engage, collaborate, and co-create with other agencies, iwi, and wider stakeholders to incentivise people to adopt good environmental management practices and make robust decisions
- build the skills to develop, maintain, and analyse our evidence base to ensure this is used in our daily work
- make sure all staff have access to the right tools to enable exceptional performance in the short- and medium-terms
- ensure our policies are easy and practical to implement for end users and service delivery partners.

Monitoring and evaluation

We have invested in our evaluation capability in recent years, to better monitor our progress. Prioritising monitoring and evaluation across the environment system will ensure there is an evidential base to drive effectiveness of policy and interventions, and ultimately our outcomes.

We will continue to monitor and evaluate our progress towards delivering the vision and outcomes in this strategic plan. Specific, domain-based targets and measures will drive our efforts to deliver these, and help us identify what success looks like over the next 5, 10, and 30 years.

This will help us to make decisions about what:

- services to deliver
- our policy priorities
- capabilities in which to invest.

We recognise that policies and operations in the environmental management system may be challenging to evaluate. Environmental policies can be complex, and often in contexts that can make it difficult to identify whether they are being implemented as intended and having an impact. Evaluation needs to be an integral part of our processes, so that we are continuously expanding our knowledge of the system. We need to identify and promote methodologies that reflect good evaluation practice and address key challenges.

The Ministry will work with system participants, particularly regional councils, to gather data to monitor and evaluate the environment. We will continue to work closely with them on improvements to reporting systems, and build both internal and external evaluation capability and capacity.

Using the architecture of the Environmental Reporting Framework and National Monitoring System, we will obtain information about the social and biophysical components of the environmental management system, and monitor our progress to achieving our outcomes.

National Monitoring System

The National Monitoring System is a national framework that identifies and captures consistent and comparable information on how the Resource Management Act (RMA) is implemented.

It provides robust information on the implementation of the RMA and the performance of tools (national policy statements, national environmental standards, and water conservation orders). This information is used to produce a picture of the impact of the functions, tools, and processes of the RMA.

We will continue to improve the availability, consistency, and comparability of RMA information, and streamline data collection.

The data collected under the National Monitoring System will contribute significantly to our information base and ability to measure performance. It will also enhance the ability of councils and local communities to compare performance, and identify best practice. This will provide information to support better local decision-making and planning.

Environmental reporting

The environmental reporting regime will provide regular, independent, and robust reports that detail the current state of New Zealand's biophysical environment. The domain approach will see regular reporting on:

- air
- atmosphere and climate
- fresh water
- land
- marine environment.

Information on biodiversity and ecosystems will feature in the fresh water, land, and marine domains. Every three years a comprehensive report (the *Environment Aotearoa* synthesis report) will bring together information on the five domains listed above. (Note, the urban domain reflected in this plan is not a standalone domain in the *Environment Aotearoa* report, but is incorporated into the other five domains).

The reporting framework will include three main types of information: pressures, states, and impacts.

- **Pressures** explain the human activities and natural factors that influence the environment. These answer the 'why?' questions about the domain – why the domain is in the condition it is in.
- **States** describe the biophysical condition of the environment. These answer the 'what?' questions about the environment – what are the physical, chemical and biological characteristics of that domain and how have they varied over time?
- **Impacts** explain what the state and changes in the state means by informing the 'so what?' questions about the environment – what are the consequences of changes in the state for New Zealand's environment, economy, and society?

The Ministry for the Environment will also undertake work to improve quality and consistency of environmental monitoring, and the data that underpins reporting. A number of collaborative initiatives with regional councils will address issues of consistency, representativeness, and accessibility.

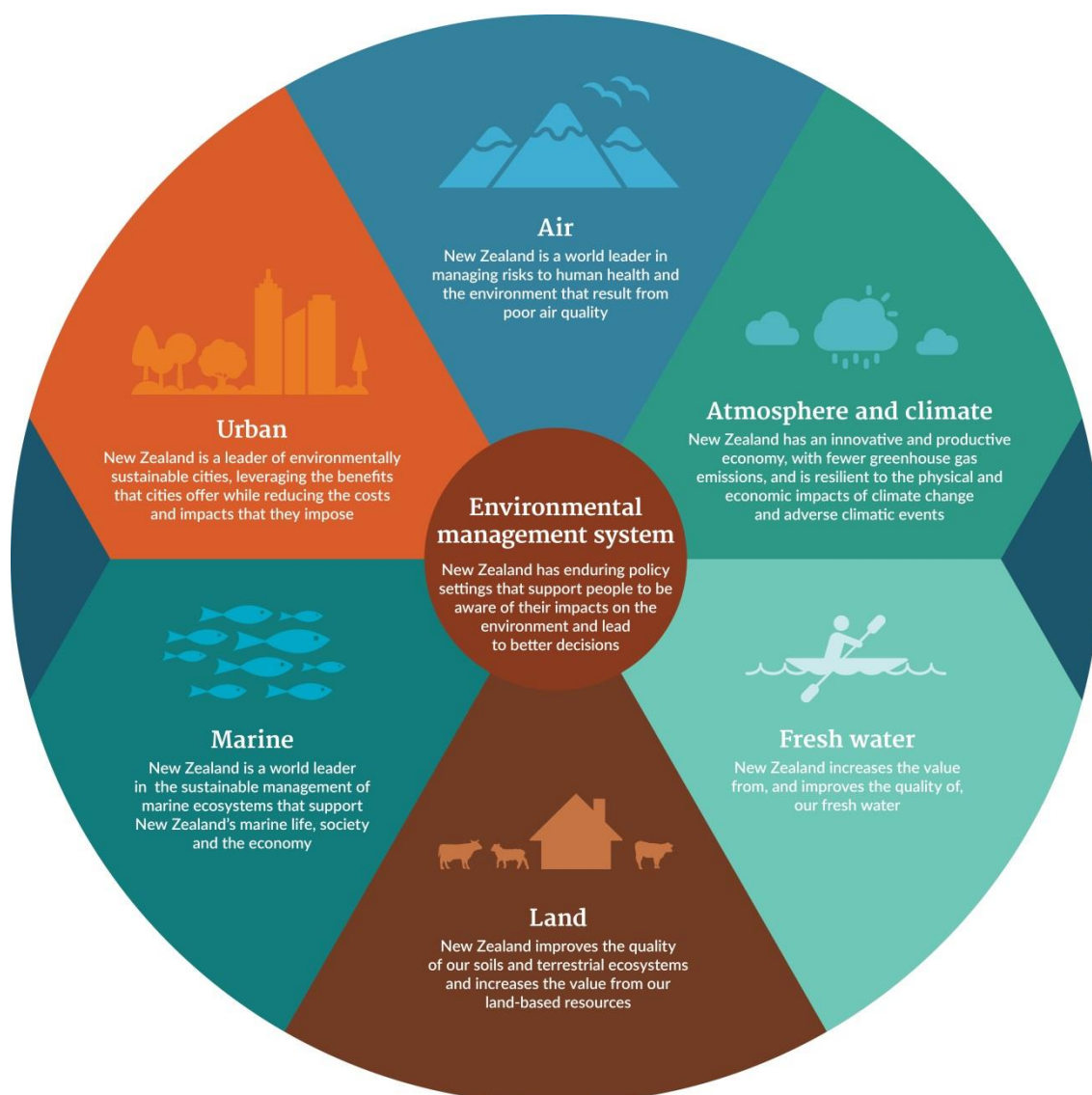
What does success look like?

Implementing this strategic plan is the first step to achieving our outcomes. Once we have delivered the strategic priorities identified in this document, we will identify and start on the next priority areas. We will keep going until we have achieved all of the desired outcomes.

So, by 2045:

- New Zealand's environment and natural resources will be sustainably managed and used to improve environmental, social, and cultural prosperity. They will increase the economic returns from the activities they support.
- The relationship between the Crown and iwi will be strong and resilient, and iwi will have successfully developed their natural resources in ways that will make significant contributions to Māori communities and national growth, consistent with Mātauranga Māori values.
- New Zealand will be a low-pollution, low-emission nation in which cleaner air, water, and marine environments enable people to lead healthy and productive lives. It will be a New Zealand where policy solutions encourage innovation for low-emission, climate-smart agriculture, transport, energy, and urban development. Cleaner production standards will spur innovation, and industry will be encouraged to innovate for new, clean technologies that provide jobs and support export-led, sustainable growth. Companies and communities will be held to account on their low-emission, low-pollution commitments.
- New Zealand will prepare for, and be resilient to, shocks, and will adapt effectively to climate change. We will be better prepared for more frequent natural disasters, more volatile weather patterns, and other long-term consequences of climate change. Our environment will be healthy, well-managed, and resilient, and so play a key role in reducing vulnerability to climate change impacts. Climate resilience is integrated into urban planning and infrastructure development.

Success from a domain perspective



Appendix 1: Domain strategic summaries

This section sets out the contribution each domain will make to achieve our strategic priorities.

Cross-domain relationships

Though we use a domain approach to understand and manage the environmental management system, it is important to recognise that domains do not operate in isolation from one another. Both ecosystems and the influence of activities and management interventions connect domains in many ways.

A key challenge is to understand these relationships better so we can:

- anticipate the implications of change in one part of an interconnected system
- gain insight into causes, consequences, and cumulative effects
- develop solutions that benefit multiple domains.

Air – Āngi

►► Our vision is that New Zealand is a world leader in managing risks to human health and the environment that result from poor air quality. ◀◀



Air quality is important for people's health and for the health of ecosystems.

Air pollution occurs through the introduction of gases, chemicals, and particulate matter (airborne particles) into the atmosphere from home heating, transport, and industrial processes. Natural substances may also affect air quality (such as sea salt, pollen, and volcanic ash).

On average, a person inhales about 14,000 litres of air every day, and the presence of contaminants in this air can adversely affect people's health. People with pre-existing respiratory or heart conditions, as well as the very young and older people, are particularly vulnerable to these effects.

Poor air quality can also affect sensitive species and ecosystems that depend on clean air. Air pollution can settle in marine and freshwater environments and compromise ecological integrity.

We will be successful when we:

- are the knowledge leader for managing risks to human health and the environment from poor air quality
- take advantage of our systemic view to lead positive change in the way New Zealanders think about and manage the air domain
- encourage the use of more sustainable approaches to activities that discharge contaminants to the air domain, and inspire people to exceed the regulatory baseline
- help people understand that managing risks to human health and the environment from poor air benefits both society and the environment.

The air domain includes the:

- gases we breathe, including nitrogen, oxygen, water, argon, carbon dioxide and trace gases, as well as particles and vapours
- 'airsheds' we divide the environment into for air management purposes. An airshed is bounded by geographical and/or meteorological constraints, within which activities discharge contaminants.

Atmosphere and climate – Kōhauhau and āhua o ngā rangi

» Our vision is that New Zealand has an innovative and productive economy, with fewer greenhouse gas emissions, and is resilient to the physical and economic impacts of climate change and adverse climatic events. «



To continue to benefit from our resource-based economy and way of life, we seek a predictable, stable climate that sees declining global greenhouse gas emissions and resilience to adverse climatic events. Limiting the global destruction of atmospheric ozone will also avoid damaging effects on human health and ecosystems in New Zealand.

We are obligated to reduce our greenhouse gas emissions, but the structure of our economy and our greenhouse gas profile makes this difficult in the short term. We will need to be innovative and adapt to both grow the economy and reduce our emissions.

The Ministry for the Environment can help New Zealand prepare for the medium- and longer-term planning consequences of climate change on our economy and lifestyle, and help the public and private sectors navigate possible pathways to a low-carbon future.

We will be successful when:

- greenhouse gases are reduced and decoupled from economic growth
- New Zealanders effectively manage the physical and economic impacts of climate change
- the Ministry for the Environment is seen as a trusted provider of high quality, integrated climate advice, and an authority on the economic, social, and environmental consequences and opportunities of climate change.

The atmosphere and climate domain includes the atmospheric and climatic processes within the geographic area covered by New Zealand's exclusive economic zone, such as:

- adverse events
- atmospheric greenhouse gas levels
- atmospheric ozone levels
- precipitation
- sea level/acidity/temperature/sea state
- sunlight
- temperature
- wind.

Fresh water – Wai

» Our vision is that New Zealand increases the value from, and improves the quality of, our fresh water. «



We swim, boat, and fish in fresh water, and draw our drinking water from it. It has a deep cultural significance and we use it for spiritual sustenance. Māori regard it as a taonga. It is one of New Zealand's key economic assets: generating clean, renewable hydro-electricity and irrigation, with \$6.5 billion generated from horticulture and wine; \$14 billion from dairy exports; \$4.5 billion from forestry exports; and about \$10 billion from tourism. These industries create thousands of jobs and support the high standard of living New Zealanders enjoy.

In comparison to other countries, fresh water in New Zealand is abundant, but it is not always available when and where it is needed, highlighting the importance of storage and irrigation. Fresh water is under increased pressure from population growth and land-use intensification, which is exacerbated by climate change. Uncertainty about reliable supplies creates reluctance to invest.

The overall quality of New Zealand's fresh water is good, but can vary depending on land use, climate, and geology. Waterways carry run-off from land (animal and arable agriculture, forestry, horticulture, and urban pollution), providing a valuable environmental service, but causing water bodies to become polluted (taking many years and great expense to clean up), with a significant impact on some marine environments.

A key challenge is ensuring New Zealand's water resources are managed sustainably without causing damage to the environment. This will involve solutions that:

- protect and enhance fresh water and the communities, enterprises and economies that rely on it
- enable iwi to undertake kaitiakitanga in the long term, through addressing iwi rights and interests
- ensure we manage our fresh water within appropriate quality and quantity limits.

The freshwater domain includes surface and groundwater, in:

- wetlands
- rivers
- lakes
- streams
- estuaries
- aquifers
- artificial reservoirs
- canals
- storm water systems
- glaciers.

We will be successful when:

- healthy freshwater resources support long-term well-being and economic prosperity, with fresh water used in more efficient and productive ways
- iwi/hapū rights and interests are addressed and iwi/Māori values are provided for without costly processes
- communities understand and address the issues in their catchments
- management approaches build resilience (of system and resources), reflect trends in climate change, are integrated with land-use management, and take account of impacts in the coastal marine area.

Land – Whenua

» Our vision is that New Zealand improves the quality of our soils and terrestrial ecosystems and increases the value from our land-based resources. «



The health of our land underpins our economy and our way of life. We depend on the quality of our soils and ecosystem services for much of our economic activity. The land and the nature that it supports is also a key part of our national identity.

The majority of the land domain is in private ownership and is used for a variety of commercial, residential, cultural, and other purposes. The last decade has seen a significant intensification of land use, particularly pastoral land use. This intensification has had environmental impacts across all the environmental domains. Human activities can leave a legacy of nutrient depletion or contamination from hazardous substances, waste disposal, and other sources.

We need a new way of thinking about our land use that encourages a long-term perspective. We also need to be more innovative and responsive in our approach to managing the effects of our activities on the land. For example, modern biotechnology advances have the potential to mitigate land use and climate change pressures, assist with biosecurity and biodiversity outcomes, and increase productivity (in agriculture, horticulture, and forestry). This potential is currently not being realised.

We can help New Zealanders by building understanding of the consequences of different choices for land use and management. This will help to enable more effective decision-making and kaitiakitanga. Key to this is developing our knowledge of comparative social and economic values of different land uses and for ecosystems so we can grow the economy while managing the cumulative effects of land-based activities and improving systems and techniques for planning for, and responding to, natural hazard risks.

We will be successful when:

- the health of soils and terrestrial ecosystems are maintained
- there is broad consensus across society on the key outcomes that are desirable for land use over the long-term
- New Zealanders know how to make effective and enduring decisions that get the best value from our land and land-based resources.

The land domain includes:

- rural and peri-urban land
- soil health and quality
- biodiversity and ecosystem services
- what grows on the land as well as what is in the soil
- the aesthetic components of landform and landscape
- mauri of the whenua.

Marine – Wai Tai

» Our vision is that New Zealand is a world leader in the sustainable management of marine ecosystems that support New Zealand's marine life, society and the economy. «



Human activities affect the marine environment at both global and national scales. Ocean acidification and rising sea temperatures are considered key impacts on a global scale, while nutrient run-off and sedimentation from land activities (animal agriculture, forestry, urbanisation, horticulture, and arable farming), and the impact of bottom trawl fisheries in the New Zealand marine area, have been identified as causing the most significant effects at the national level.

The seas around New Zealand are an important habitat. They provide essential resources and are key transport routes. The dynamic nature of the marine environment, and our limited knowledge of its operation, affects the way we need to manage it compared to the environment on land. The resources of the marine environment are limited, and there is an increasing need to move away from a sectoral approach towards a systems approach that considers the effects of all human activities on marine ecosystems.

A key challenge is to ensure the marine management regimes in place are resilient and adaptable in the face of current environmental trends and future change. A further challenge is to ensure the marine environment can deliver economic growth from this resource in a sustainable manner.

We will be successful when:

- we take advantage of our systemic view to lead positive change in the way New Zealanders think about and manage the marine domain
- marine decisions take into account the interests of the marine environment as a whole
- the number of sustainable approaches to activities that occur in the marine domain increases, and people are inspired to exceed the regulatory baseline
- people understand that sustainable use of marine resources can be good for everyone, and for the environment.

The marine domain includes the:

- coastal marine area, including the coastal area to around 1km inland
- territorial sea (out to 12 nautical miles)
- waters, marine life (including seabirds), and seabed of the Exclusive Economic Zone (from 12–200 nautical miles)
- seabed of New Zealand's continental shelf that extends beyond the Exclusive Economic Zone.

Urban – Tāone

» Our vision is that New Zealand is a world leader of environmentally sustainable cities, leveraging the benefits that cities offer while reducing the costs and impacts that they impose. «



The 85 per cent of New Zealanders living in urban environments reflect a worldwide trend of urbanisation that is likely to continue in the future. Urban areas play a critical role in New Zealand: they are integral to national economic competitiveness and prosperity, including environmental, economic, and social well-being.

Our cities are the places where pressures on natural resources are most intense, as people seek opportunities to live, work, and play in close proximity to each other. The scale and intensity of this social and economic interaction can lead to innovation and creativity. Without careful management, it can also lead to significant and enduring poor environmental outcomes.

Successful cities avoid these poor outcomes by harnessing the benefits of economic growth to plan and invest in environmentally sustainable urban development. This is achieved by informed and timely decision-making supported by robust evidence, explicit understanding of trade-offs, and the commitment of affected communities.

We can help New Zealand move to managing urban and natural environments in an integrated way, and understanding where interventions can deliver benefit to New Zealanders without compromising high-quality environmental management.

We will be successful when our cities:

- accommodate growth and economic development without increasing environmental impacts
- are managed in an integrated way, recognising the relationship between natural and urban environments
- are adaptable and resilient to change over time
- are places where people and communities thrive.

The urban domain includes:

- connections between components of the built environment, such as individual buildings, transport systems, and other physical network infrastructure, communications and social assets (eg, schools, hospitals, sports fields)
- connections between the natural and urban environment – the urban environment system
- the institutions and management frameworks that govern land use and urban development.

Appendix 2: Glossary of terms

Term	Explanation
Activity	A practice with a significant impact on the state of the environmental system.
Domain	A thematic area. The Ministry for the Environment uses six domains: air, atmosphere and climate, fresh water, land, marine, and urban.
Ecosystem services	Humans benefit in many ways from ecosystems. Collectively, these benefits are known as ecosystem services.
Environmental management system	The governing structures, tools, processes, practices, and decisions for managing the allocation and use of and impacts on natural resources and the environment.
Evaluation	The systematic determination of the quality, value, and importance of policies/solutions, and the outputs and outcomes that stem from these.
Framework	Structure that provides a means of organising information.
Governing bodies	The groups that lead, provide structure, and make decisions on objectives, strategic direction, and priorities for participants within the environmental management system. Examples of governing bodies include central government, local government, community groups, business groups, iwi leaders forum.
Incentive	Extrinsic factor that motivates people's behaviour.
Implementation	Delivery of the policy or solution through organised activities. Includes enacting legislation, policies, regulations and plans.
Intervention	Deliberate and planned investments, such as policies and regulations, activities and outputs, intended to bring about some change.
Institution	Rules and norms people follow that guide and constrain their behaviour.
Manage	How the social system handles, directs, governs or controls the use of natural resources.
Outcomes	The change that occurs as a result of the intervention.
Outcomes framework	An outcomes framework links activities with what you want to achieve (outcomes). An outcomes framework is like a road map that lays out your journey and helps identify and monitor how well you are progressing toward your outcomes (evaluate).

Term	Explanation
People, society, and users	Citizens, businesses, and civil society organisations that use natural resources and the environment and/or are impacted by the use or management of natural resources and the environment.
Policy design /solution development	The proposed or adopted course of action used to manage natural resources and the environment. It includes policies and plans set by central and local government, community groups, and businesses.
Social system	People – their values, norms, and rules. The social system has political, economic, and cultural dimensions, including institutions and incentives.