

Summary of public consultation

On Te Koiroa o te Koiora, the Discussion
Document for the new Aotearoa New
Zealand Biodiversity Strategy



Department of
Conservation
Te Papa Atawhai

This document may be cited as: Department of Conservation 2020. Aotearoa New Zealand
Biodiversity Strategy: summary of public consultation. Wellington: Department of Conservation

Published in August 2020 by the Department of Conservation

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18 Manners Street
Wellington 6143
New Zealand

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3 Introduction

3.1 Purpose

This report summarises and provides a record of the public consultation carried out to develop the Aotearoa New Zealand Biodiversity Strategy (ANZBS).

New Zealand's current biodiversity strategy, Our Chance to Turn the Tide, has been in place since 2000 and expires in 2000. Developing a new biodiversity strategy gives the Department of Conservation (DOC) the opportunity to plan for the protection and restoration of nature. The ANZBS is a vital tool for determining the priorities for New Zealand's biodiversity management, including taonga species, right across our biodiversity system.

Public engagement on the development of the ANZBS took place between late 2018 and early 2020:

- Phase one of public engagement—late 2018 to July 2019: Treaty partner hui, public workshops and focus groups, and development of the discussion document, Te Koiora o Te Koiora.
- Phase two of public engagement—August to September 2019: Eight-week public consultation period on the discussion document, Te Koiora o Te Koiora; public workshops and focus groups. Treaty partner hui were held from October to December 2019.

The feedback recorded in this document reflects the views of Treaty partner, workshop and focus group participants, and online submissions received from key interest groups and the general public. The feedback has not been verified for factual accuracy, completeness or scope.

Please see the glossary for definitions of key Te Reo Māori and technical terms used throughout this report.

3.2 Background

This is a critical time, with recognition of the increasing number of threatened or endangered species and ecosystems, rising awareness of the importance of biodiversity, and growing action in the area of nature conservation.

The ANZBS sets out a vision, goals and actions for addressing the drivers of biodiversity decline in New Zealand over the next 50 years. A technical report, Biodiversity in Aotearoa: an assessment of state, trends and pressures, which documents the biodiversity crisis, has also been published¹. It provides a stocktake of the biodiversity crisis in Aotearoa by describing the state, trends and pressures on indigenous biodiversity across the domains of marine, freshwater and land.

3.3 Development of the discussion document

The ANZBS discussion document² outlined draft proposals to be included in the new biodiversity strategy. The ideas presented in Te Koiora o Te Koiora, the discussion document, reflected the range of conversations about nature that DOC held with iwi/hapū/whānau and stakeholders between November 2018 and April 2019. The discussion document was also based on responses to questions on DOC's website.

¹ <https://www.doc.govt.nz/anzbs-biodiversity-report>

² <https://www.doc.govt.nz/globalassets/documents/conservation/protecting-and-restoring/biodiversity-discussion-document.pdf>

DOC’s initial discussions with Treaty partner and other stakeholders provided ideas for the kind of future New Zealanders would like for New Zealand regarding biodiversity.

3.4 Reference groups supported the strategy development

The development of the discussion document and the final ANZBS is supported by three reference groups, as shown in the table below. See Appendix 4—ANZBS Reference Group members for a full list of names.

Group	Purpose	Membership
Te ao Māori reference group	To bring a Kaupapa Māori perspective to the strategy, so it promotes a te ao Māori world view, advancing Māori priorities for biodiversity and taonga species.	Māori with expertise in mātauranga Māori, conservation, and natural resource management. The group is not representative of iwi/hapū/whānau.
Science reference group	To ensure the ANZBS is grounded in a strong evidence base, and considers future science needs to support thriving biodiversity.	Scientists, technical experts and people with expertise in mātauranga Māori.
Stakeholder reference group	To ensure the ANZBS considers and reflects the views of key biodiversity stakeholders and the collaborative actions of iwi/hapū/whānau, landowners, the Government, and the wider public.	Representatives from key stakeholder organisations: environmental and recreation organisations, local government, and industry.

3.5 Overview of the proposals set out in the discussion document

The proposals set out in Te Koiora o Te Koiora make an ambitious plan to help everyone in New Zealand protect and restore our biodiversity over the next 50 years.

3.5.1 Vision/matapopore

A starting point for any strategy is a vision a different future. Te Koiora o Te Koiora reflects the idea that humans are part of nature and therefore restoring our connection with nature is vital.

The proposed vision for 2070 is: ‘Nature in Aotearoa is healthy, abundant, and thriving. Current and future generations connect with nature, restore it, and are restored by it.’ This vision helps New Zealand become a place where:

- Ecosystems are healthy and resilient
- Indigenous species are abundant and part of our everyday lives
- We recognise the value of nature and our obligation to protect it
- The mauri (the living essence) of nature and people has been restored.

3.5.2 Framework, goals and outcomes

The proposed framework would be the pathway to this vision. The framework depends on the mātāpono (values) and the knowledge systems of mātauranga Māori and western science to guide the behaviours and monitoring systems to achieve the vision.

3.5.3 Proposed framework

Te Koiora o Te Koiora proposed progress goals for 2025, 2030 and 2050. These goals will help measure progress on the strategic pathway to long-term outcomes, helping achieve the vision. The framework was a Māori poutama design and grouped eight proposed outcomes into three themes.

Theme	Purpose	Associated outcomes
Whakahou (empower)	To make sure New Zealanders can act to restore our nature.	<ul style="list-style-type: none"> All New Zealanders can connect with nature and recognise its value in supporting intergenerational wellbeing. Tangata whenua exercising their role as kaitiaki.
Tiaki (protect and restore)	To focus our work on protecting and restoring our unique nature.	<ul style="list-style-type: none"> A full range of ecosystems on land and water are healthy and functioning. Indigenous species and their habitats are secure and thriving. Indigenous biodiversity is managed to be resilient to global changes.
Wānanga (promote behaviours and systems)	To empower others and protect nature, we will need to make changes to our systems and the way we behave.	<ul style="list-style-type: none"> Introduced species are managed to maintain or enhance indigenous biodiversity, while providing for the values that non-indigenous species provide. Our economic activity provides for the restoration and protection of our indigenous nature. New Zealand is making a meaningful contribution to global biodiversity management.

3.5.4 System shifts

Te Kōiropa o Te Kōiropa suggested five system shifts as the most important changes for the next five years to realise New Zealand's vision and outcomes. 'System shifts' are the big changes we can make to have the biggest impact possible, and to reduce any barriers.

The five proposed shifts:

1. Getting the system right to help enable and deliver our goals with clear roles at all levels (local, regional and national).
2. Empowering kaitiakitanga and mātauranga Māori by embedding te ao Māori perspectives throughout our work and enabling kaitiaki at all levels.
3. Empowering communities to act, so all New Zealanders can be well-connected stewards of nature.
4. Connecting ecosystems from the mountain tops to the ocean depths, and managing them in a joined-up way.
5. Innovating for the future by using technology and science to transform how we manage our nature's health.

3.6 Consultation analysis and next steps

Submissions received during public consultation have been assessed by the project team and have been coded and themed using qualitative data software (MAXQDA). All submissions are being used to inform the development of the new national biodiversity strategy. The new strategy will be developed throughout 2020, and tested with Treaty partner and key stakeholders, before being considered by Cabinet in late 2020.

4 What we did

4.1 Developing the discussion document

Consultation on the New Zealand Biodiversity Strategy (ANZBS) took place with Treaty partner and other stakeholders, including members of the public, business sector groups and youth-specific groups. A range of methods was used, including public workshops, focus groups, hui, and online engagement. This section outlines the general public consultation, the work done with treaty partner, and focus group, digital, and youth engagement.

4.2 Consultation with the general public

Public consultation on the New Zealand Biodiversity Strategy consisted of two phases. The first phase (November 2018 to April 2019), focused on early public engagement and developing a discussion document. The Department of Conservation (DOC) sought an open discussion with Treaty partner, other stakeholders, and the New Zealand public on their views, aspirations and roles in protecting and restoring nature. These conversations informed the development of the discussion document, Te Kōiroa o Te Kōiōra.

The second phase of public consultation (August 2019 through to December 2020) focused on the Treaty partner, other stakeholders, and the general public's feedback on the discussion document. Consultation consisted of public workshops, hui, focus groups and online engagement on the proposals set out in the discussion document.

4.3 Public workshops

Six public workshops were held in phase one, in:

- Auckland
- Hamilton
- Wellington
- Nelson
- Christchurch
- Dunedin.

Eight public workshops were held in phase two, this time in:

- Auckland
- Hamilton
- Hawke's Bay
- New Plymouth
- Wellington
- Nelson
- Christchurch
- Dunedin.

The workshops ran for 4.5 hours. At each event, a presentation on the proposals was given, followed by an open forum to workshop the key challenges and opportunities of biodiversity management. Regional representatives, mostly from community conservation groups or local government, were invited to speak at the workshops. They discussed local biodiversity impacts and challenges and the initiatives already taking place in communities.

The average number of attendees at each workshop was between 40 and 60 people, with higher attendance in the main centres.

4.4 Business sector focus groups

Six focus groups were held with business sector groups and youth to discuss their perspectives and values relating to biodiversity management in their sector. This included the following focus groups:

- Mining sector—Hokitika, 21 August 2019
- Primary sector—Christchurch, 30 August 2019; Wellington, 5 September 2019
- Marine sector—Wellington, 10 September 2019
- Fishing sector—Wellington, 19 September 2019
- Youth—Wellington, 13 February 2019.

4.5 Engagement with Treaty partners

Before developing the ANZBS discussion document, DOC sought an open discussion on the views, aspirations and roles of Treaty partners in protecting and restoring biodiversity. Many topics were covered, including the ANZBS, the proposed National Policy Statement on Indigenous Biodiversity (NPSIB), the Predator Free 2050 strategy, and topics around the development of New Zealand's Visitor Strategy.

The series of hui was part of DOC's pilot to improve its policy development process with Treaty partners through early engagement.

There were two phases to this engagement. The first occurred between November 2018 and April 2019, and the second took place between August 2019 and February 2020. DOC sought to engage with Treaty partners in an upfront and open way on protecting and restoring biodiversity. Phase one consisted of 22 hui and phase two of 20 hui. Approaches to the workshop design were tailored to meet the needs of each Treaty partner. For example, some hui had many iwi in attendance, while other hui were held with individual iwi/hapū/whānau.

The key themes discussed across Treaty partner hui are presented in the Overall summary.

4.6 Online engagement³

4.6.1 Biodiversity HiveMind

The public could engage in the discussion document online using Scoop's public engagement platform, HiveMind. The Biodiversity HiveMind ran for seven weeks, from Monday 5 August to Sunday 22 September 2019. The interactive survey platform allows participants to consider statements about an issue, add their own statements for others to vote on, and to see how their opinions fit with other people's views. Participants were supported with links to the discussion document and other information resources, including independent news articles.

4.7 Youth engagement

Youth engagement was carried out to understand the perspectives and values of young people as future custodians of New Zealand's biodiversity, and the generation that will inherit the ANZBS.

Youth engagement consisted of:

- The Hive platform
- Youth workshop and focus group.

³ This section and parts of the survey response section are based on the Biodiversity HiveMind Report: Protecting and Restoring New Zealand's Biodiversity. See [Report: Protecting and restoring New Zealand's Biodiversity](#) for the full report.

4.7.1 The Hive—youth engagement⁴

Note: The Hive is a distinct online platform from Biodiversity HiveMind. The Hive was specific to youth engagement, while HiveMind is open to all age groups.

Over a nine-week period, from 12 August to 13 October 2019, 281 young New Zealanders from across Aotearoa New Zealand made submissions on the ANZBS through The Hive website.

The social media approach and the submissions process for youth was co-developed by:

- The Hivers—15 young New Zealanders
- Curative—a design agency focused exclusively on projects that help make the world a little bit better
- Ministry of Youth Development
- Department of Conservation
- Department of Internal Affairs.

The social media approach and submissions process for youth was co-developed through a weekend workshop in Auckland.

Young people who visited The Hive could make a submission on the ANZBS through a process designed by the Hivers. Youth could choose to create a video, make a written submission, or write responses to four biodiversity-related questions.

4.7.2 Youth workshop

A one-hour youth workshop on the ANZBS was facilitated with the biodiversity and climate change student groups (25 participants) at the United Nations Aotearoa Youth Declaration, a civic education conference held in Auckland on 15–18 April 2019. The ANZBS workshop focused on the participants' aspirations, concerns and perspectives regarding the state and management of New Zealand's current and future biodiversity. The discussion contributed to the inclusion of biodiversity in the Aotearoa Youth Declaration 2019.

⁴ Please see [here](#) for the Hive website and [here](#) for the Hive Instagram channel.

5 What we heard

5.1 Number and types of submissions

The Department of Conservation (DOC) received:

- 159 substantive written submissions
- 550 survey responses
- 443 Biodiversity HiveMind participants' feedback
- 281 youth submissions
- 1846 individual form submissions from Forest and Bird supporters.

Appendix 1—Written submissions, provides a list of all written submissions received. This included five written submissions from Treaty partners and 154 individual submissions across the following interest groups:

- Statutory boards (9 submissions)
- Environmental non-governmental organisations (NGOs) (14 submissions)
- Community and recreation groups (38 submissions)
- Industry (22 submissions)
- Local government (19 submissions)
- Science community (24 submissions)
- General public (30 submissions).

All submissions have been summarised and given equal weight in this summary report.

6 Overall summary

6.1 General overview

The general overview focuses primarily on written submissions received with supporting text from Treaty partner hui, public workshops, and focus groups.

Most submitters across all interest groups supported the intent of the proposals in the discussion document in principle. Many of these submitters broadly agree there is a biodiversity crisis, and a need to act urgently.

6.1.1 Reviewing the current New Zealand Biodiversity Strategy (NZBS)

Many submitters said it is important that the current NZBS is analysed in depth to understand what worked, what didn't, and why. These learnings should then inform the new 20-year ANZBS, including baselines for new goals. One scientist submitter suggested this should be done by an independent reviewer.

6.1.2 Purpose and scope

Many submitters said the ANZBS should only be about protecting and restoring indigenous biodiversity, and this purpose needs to be made clearer.

The overarching scope of the ANZBS was less clear to submitters. One submitter considered that there was generally too much emphasis on non-indigenous biodiversity in the proposals. This submitter suggested there are already plenty of incentives to help manage non-indigenous biodiversity interests. There was, however, a general sentiment among many submitters about scope:

- Everything that has an adverse impact on indigenous biodiversity should be in scope of the ANZBS. This includes non-indigenous biodiversity even if it provides benefits to New Zealanders beyond the scope of the ANZBS.
- The ANZBS should not have a role to play in protecting and restoring non-indigenous biodiversity unless it contributes to the protection and restoration of indigenous biodiversity.
- Treaty partner and all other New Zealanders, including businesses, should be empowered to protect and restore indigenous biodiversity.

There was concern expressed by some submitters about the benefits that some non-indigenous biodiversity provides to New Zealanders and how this is reflected in the ANZBS as 'positive non-indigenous species'. The members of one conservation board were concerned about calling some introduced species, such as radiata pines (which provide habitat for kiwi and kārearea), positive. In the board's view this sends the wrong message, as there could be native forest if pine plantations weren't there.

Industry, and some community and recreation submitters, generally agreed that the ANZBS should be about indigenous biodiversity. One industry submitter also said it was positive to see business reflected in the proposals. However, most of these submitters felt it was important the value of some non-indigenous species are recognised properly in the ANZBS. For example, one submitter stated primary industries play a critical role in protecting and restoring indigenous biodiversity, as well as providing sustenance, lifestyle and economic benefits to New Zealanders. Another community and recreation submitter said several introduced species are highly valued culturally by both Pākehā and Māori, such as trout, salmon, game birds and game animals.

Some industry submitters noted that some non-indigenous biodiversity in New Zealand (such as predators, pests and browsers) also adversely impact on industry interests. They suggested that industry plays an important role in helping manage these impacts, and has an interest in how this is done. Further, a few industry submitters noted that sustainable use is essential to their interests. Their business models already reflect this.

Many land-based industry submitters, along with many councils and other submitters, said that protection and restoration of indigenous biodiversity outcomes on private land cannot be achieved without buy-in from landowners. These submitters said it's important that industry is seen as part of the solution as well as the problem. Industry, along with other New Zealanders, should also be empowered to act.

Many industry submitters noted that they already have a mandate to manage sustainable use through the fisheries management framework. While there is general support for the intent of the ANZBS from these submitters, and while it is important to clarify the roles and responsibilities of relevant parties in the ANZBS, the ANZBS should not duplicate existing functions.

A few community and recreation submitters said maintaining a pristine environment is important to hunters too. One community and recreation submitter said they would like to see a more nuanced and pragmatic view in the ANZBS, providing a place for valued non-indigenous biodiversity.

6.2 Key pressures and drivers of indigenous biodiversity loss

Many submitters agreed with the key pressures and drivers of loss, and made few additional comments. Some submitters, however, noticed gaps, and some said more emphasis should be placed on climate change, economic development, fresh water, the marine environment, urban and high-growth areas, private land, invasive species, and management frameworks, as well as the overarching problem definition.

One council noted there is a perception that New Zealand has a clean and green environment, but there is a general lack of knowledge about the real extent of the biodiversity crisis. The council reported, in the Auckland region alone, that 40% of indigenous ecosystems are identified as critically endangered, with 68% of those remaining found on private land, and 308 vascular plants, 49 birds, 2 bats, 1 frog, 16 terrestrial reptiles and 11 freshwater fish species thought to be threatened or at risk of extinction.

Around half of the youth submitters described New Zealand's environment as either 'bad' or 'very bad', with only 37% describing the environment as being in a good state. Sixty-six percent of youth submitters feel their local environment has undergone negative change over time.

6.2.1 Problem definition

While many submitters generally agreed with the key pressures identified in the discussion document, some feel a more comprehensive problem definition is needed. A few industry submitters said the problem definition was too high level, lacked evidence, did not adequately consider cumulative impact, and does not prioritise risks. One conservation submitter said diagrams and examples that show the human impact on biodiversity would engage people, and help make the ANZBS a national priority.

One submitter thought the discussion document should have included not only what is happening around biodiversity loss, but also what is going to happen. One community and recreation submitter suggested that including a timeline of events showing the acceleration of systems degradation would be useful.

6.2.2 Climate change

Many submitters said climate change challenges are considerably understated in this section. The general sentiment was that climate change will adversely impact efforts to protect and restore species, habitats and ecosystems. This is the single biggest threat.

6.2.3 Economic development

Many submitters said this section fails to adequately acknowledge the human drivers of biodiversity loss through ongoing economic development, and the decision-making and funding frameworks that prioritise it. One conservation submitter stated that indigenous biodiversity, and nature more generally, is not adequately valued and accounted for in the economic system. One council suggested that economic priorities result in the clearing of native forest, the draining of wetlands, agricultural run-off, sea floor trawling, and other destructive activities. Another submitter said mass consumerism is a key issue.

6.2.4 Urban and high-growth areas

Many councils located in urban or high-growth areas, as well as some other submitters, said that population growth and urban development should also be considered a key pressure. One conservation board said the Auckland region faces a more acute set of threats than any other area, due to historic loss and habitat degradation across marine, freshwater, and terrestrial domains,

made worse by increased development, damaging land use practices, population growth, increased urbanisation, reduced tree cover, and worsening climate impacts.

Other submitters expressed concern about urban pollution caused by residents, industrial land use and poor infrastructure, as well as general waste and landfill challenges.

6.2.5 Tourism

A few submitters, including a conservation board and some councils, said the impact of tourism growth is overlooked in this section and should be made explicit. One council considered that tourism growth remains a threat to water quality and biodiversity values in its area.

6.2.6 Marine

Additional marine pressures were mentioned by some submitters. These included the impact of ocean trawling, urban pollution, poor infrastructure (such as wastewater systems), ocean plastics, and oil and mineral exploitation and extraction. One community and recreation submitter considered industrial scale aquaculture is also a significant threat.

Some submitters, including some scientists and many marine industry submitters, said land pollution and sedimentation run-off, along with climate change, are the key pressures faced by marine biodiversity. Marine industry submitters suggest that these externalities rather than the impact of fishing (which is also suggested in this section as a key pressure) need to be managed.

6.2.7 Fresh water

A few submitters said there needs to more focus on freshwater pressures. One submitter said that although the highest number of threatened species live on land, the highest proportion of species threatened with extinction are found in fresh water (such as eels and native fish). One community and recreation group submitter thought that habitat loss should be the focus, as this is the single biggest threat to freshwater biodiversity, not introduced freshwater pests.

6.2.8 Wetlands

Some submitters noted that different types of wetlands face different threats. One conservation submitter stated that wetland systems are naturally low in nitrogen and vulnerable to agricultural runoff; peat wetlands are vulnerable to drainage and invasion by exotic woody species; floodplain forests are vulnerable to river control activities; and coastal wetlands are threatened by sea-level rise and storm surges. These pressures need to be prioritised and managed differently.

6.2.9 Biosecurity and invasive species

Some submitters said there should be greater acknowledgment in this section about pests, browsers and predators. One submitter stated that invasive exotic plants, browsers and predators are the leading cause of species extinctions. The spread of invasive species by people and animals both intentionally and unintentionally needs to be managed. A few submitters noted that marine pests are increasingly an issue, and should be considered alongside terrestrial pests. A few industry submitters stated that invasive species also impact on commercial interests. One submitter said the threat of pathogens should be acknowledged.

6.3 Key terms and assumptions

Many submitters were concerned about the ambiguous meaning and inconsistent use of some key terms in the discussion document. This caused some confusion and impacted on purpose and scope, resulting in flow-on effects across the proposals. The key terms mentioned by many submitters were 'nature', 'indigenous biodiversity', 'non-indigenous biodiversity', 'positive non-indigenous biodiversity', 'negative non-indigenous biodiversity', 'introduced species', 'significant' and 'protection'. Submitters generally said these key terms need to be adequately defined and used consistently in the final ANZBS.

Many submitters were concerned about using the word 'nature' in the ANZBS and putting it 'at the heart of the ANZBS.' 'Nature' to many submitters implies a focus on both indigenous and non-indigenous biodiversity, as well as humans. Some submitters said using the word 'nature' would help create the important connections between people and nature that are needed to empower people to deliver the goals. Many others disagreed with this sentiment. One council saw putting nature at the heart of the ANZBS as problematic, as it includes a focus on primary industries and tourism. While biodiversity can benefit primary production, the connections are lightly drawn in the discussion document. These connections would therefore not be compelling to those that don't fully support responsible stewardship, wellbeing and the intrinsic value of biodiversity. This may also confuse the general public, undermine the focus on indigenous biodiversity, and limit New Zealand's ability to lead on indigenous biodiversity at a global level. One submitter noted the use of the term 'nature' is inconsistent with other management tools and regimes (such as the National Policy Statement on Freshwater Management, and the CBD).

One conservation board and a few other submitters said clarity should also be provided on how the 800-year timeframe was established for categorising species as indigenous or non-indigenous. One council noted species that have arrived naturally in the last 800 years without human involvement are being referred to as 'introduced species'. This is not common phrasing, and they should be referred to as 'native' or 'coloniser' species.

One conservation submitter said protecting and restoring were the two key pillars of the ANZBS, and should be elevated as the overarching focus. There were otherwise mixed views from some submitters about finding the right balance between these pillars in the proposals to reflect this. One conservation submitter said the discussion document came across as being about 'maintaining' rather than 'restoring' or 'improving'. However, some submitters, particularly councils, said it is important to note that a lot of indigenous biodiversity, including rare and uncommon biodiversity, can never be restored after it is lost, and protection needs to be prioritised. Clarity is needed on this balance.

One science submitter stated they were uneasy about the potential for an 'either/or' mentality around ecosystem resilience and species recovery. In their view, these two areas are interdependent and coexist. Rehabilitated ecosystems are needed for species to thrive, and species are needed for rehabilitated ecosystems to thrive.

Many submitters across all groups and proposals said it is important the ANZBS does not take a 'one size fits all' approach. For example, stakeholders, domains and regions all have unique attributes. Some submitters said this needs to be considered in roles and responsibilities, national goals, regional plans and implementation, as well as a flexible management approach.

A few community and recreation submitters were concerned about the use of the term 'pest', and its application to valued game animals.

6.4 Strategy framework

Some Treaty partner submissions noted that the poutama design is about ascending in knowledge, and that the words ‘action, assess, action’ do not fit with the traditional interpretation. Some considered that the framework was a useful way of showing the key proposed elements of the strategy, but that the Crown should be aware that it was departing from the traditional interpretation and that Māori may interpret it from that lens.

Many submitters said they liked the idea of the poutama framework and how it weaves in te ao Māori. However, some submitters said the ANZBS would benefit from a logic framework that shows the direct links between its different parts. Many submitters suggested changes to the framework, to provide a more balanced perspective of the different domains, stakeholders and diverse interests in the ANZBS. One council said the framework must be able to stand alone and be understood without needing additional explanation.

6.5 Vision and timeframes

There was support from many submitters for the vision in principle, with a few saying it is aspirational. However, there were mixed views on the timeframe, and some submitters said the vision could be more ambitious while others said it needs to be more realistic and pragmatic. One submitter said the vision needs a statement to connect all New Zealanders to biodiversity, so that there is more of a sense of stewardship and responsibility for the outcomes.

Some submitters thought a 2050 timeframe better reflects the big shifts that are needed, while others felt that both a 2050 and 2070 timeframe lacked urgency. Some submitters said a 2050 timeframe would align the ANZBS to the United Nations Convention of Biological Diversity (CBD) and the climate change framework. One submitter observed it could also help people to connect to the ANZBS, as some people won’t be alive in 2070.

Many submitters proposed changes to words, phrases and focus areas that reflected similar sentiments to those raised in the general overview. A few submitters otherwise said the vision should also include a focus on protection as well as restoration. One science submitter emphasised that the vision should not be of species, habitats and ecosystems increasing, but rather increases in their status, quality and health. A few submitters said they thought the vision was too long and wordy, and could be simplified and made punchier, so it was easier to remember. One submitter said the vision should identify linkages to soil; a few were keen to see the vision translated into te reo Māori for consistency.

The vision of youth submitters (who participated in a separate process rather than in response to the proposals) is of a clean and green New Zealand, with less pollution, more flora and fauna, and greener cities. They generally felt New Zealanders need to change their attitudes to make this a reality.

6.6 Values and principles

Many submitters generally supported the values and principles. However, some industry submitters did not support some principles, and/or noted tensions between them, and sought clarity on how this would be resolved (such as evidence-based knowledge and courage to make decisions without full information). A few conservation submitters also noted tensions and sought clarity on how the principles will be applied.

A few submitters said the values and principles should be added to legislation and applied across all activities in the natural environment. One conservation submitter said the principles are largely irrelevant if they are non-binding. Another submitter, a conservation board, considered the principle on internalising environmental costs reflected a massive shift from the current regime, and they were not sure how effective it would be given the ANZBS' lack of statutory powers.

6.6.1 Values

Many submitters said the values should have an English translation. One submitter said the values are focused on economic rather than essential life support functions. If this is to form the basis of advocacy campaigns, then it is well intentioned, but if the values are to form the basis of a scientific approach, this needs to be recognised and quantified.

Key suggestions by individual submitters on new or amended values included:

- Adding a value on leadership, as without strong and committed leadership there can be no reversing the current situation.
- Strengthening the value on kaitiakitanga by encouraging stewardship initiatives through incentives.
- Reviewing the values tohungatanga and mana motuhake; they are key concepts for Māori and are inappropriately and superficially defined in this section.
- Adding a new value on accountability; 'we take responsibility and we monitor our performance, so we are accountable.'
- Additional discussion on autonomy and sovereignty.
- Adding a focus on diversity and freedom.

6.6.2 Principles

Submitters proposed a number of new principles:

- The precautionary principle, as it is well known and applies to climate change.
- A principle on what New Zealand is aiming to restore, reflecting that ecosystem function is as important as having a selection of species present.
- A principle relating to New Zealand's international obligations under the CBD.
- A principle that recognises and rewards biodiversity work, particularly on farms where costs are largely carried by individuals for no commercial gain.
- Principles on intergenerational wellbeing, local knowledge, duty of care and mandatory offsets.

Key feedback on the proposed principles included:

- Courage
- Respect for property rights
- Sustainable use
- Non-indigenous biodiversity
- Internalising environmental costs

- In situ
- Connections.

These are discussed in the following sections.

6.6.3 Courage

One conservation submitter said the failure of the current NZBS to address decline means the courage principle is important. The system has an inherent bias toward planning, and the need for more information before committing resources for action. Greater emphasis should be given to prototyping and action.

One council noted that data may never be complete but that should not stand in the way of logical management decisions. There are examples in New Zealand where research was lacking, and decisions had to be made to avoid loss or extinction. This led to coining of the term ‘research by management’, and resulted in the successful recovery of a number of iconic species.

6.6.4 Respect for property rights

Many industry submitters said respect for property rights is critical to obtaining buy-in from property owners and rights holders. The concept of partnerships is key here. Marine industry submitters also linked property rights to sustainable use, which they consider the foundation of their sector. In this regard, the ANZBS must respect property rights, and in turn, property holders must respect their obligations to conserve natural resources for the future.

Many councils said respect for property rights is critical, although it seems to sit oddly in the framework under tools. It would sit better under working together.

Conservation submitters had mixed views on this principle. While some consider this principle key to obtaining buy-in from property owners and rights holders, a few said it would constrain the ANZBS. One submitter said it must be balanced with another principle that prioritises nature over economic interests. The principle of sustainable use makes the point, but less firmly. Another submitter wanted to see the word ‘resource’ omitted from this principle, as it doesn’t change the meaning and is the type of economic-focused language that needs to change.

One conservation board noted the rights of the commons are poorly provided for and ignored over private property. The commons should also be respected.

An issue raised by two science submitters was the actual or perceived threat to property rights. One of these submitters said the ANZBS should leverage off development, connecting private property rights to biodiversity. The example was given of the United Kingdom’s (UK’s) Biodiversity Net Gain System. In this case, some developers have actively supported mandating biodiversity net gain, arguing that it creates a level playing field and ultimately reduces costs.

6.6.5 Sustainable use

One conservation submitter said this principle should be strengthened to consider the need for recovery of threatened species, consistent with obligations under the CBD.

Another conservation submitter said this principle clarified to include managing within limits and ecosystem capacity. Limits should be set to enable and build resilient ecosystems such as fisheries management buffers, to ensure fisheries are resilient to climate change.

One submitter saw the principle as based on long-term decline as a measure, which was not acceptable in the submitter’s view. They added, sustainable use should enable a population to grow

albeit at a rate that is slower than would occur without human use or activity. It is accepted that species are subjected to natural attrition through environmental variation and this needs to be considered.

6.6.6 Non-indigenous biodiversity

Many industry submitters did not support this principle as it is written, as they do not necessarily support the priority of indigenous biodiversity over non-indigenous biodiversity. One submitter said this should be considered on a case-by-case basis that considers the need to respect property rights.

One conservation submitter said there is undue emphasis on managing and allowing the use of non-indigenous biodiversity, which could compromise protection. Economic development should not be a priority of the ANZBS, and this should be made clear in this section.

Another conservation submitter said more thought is needed on the management of non-indigenous non-pest species to ensure that the values and benefits/ecosystem services associated with these species are considered.

6.6.7 Internalising environmental costs

A few submitters suggested this will be the hardest principle to implement, yet it is critical.

Some forestry industry submitters did not support this principle, as it sets a perverse outcome by penalising activities that support biodiversity outcomes. At the same time, land users undertaking no biodiversity loss face no costs. This effectively becomes a tax on ecosystem services.

One marine industry submitter supported this principle as long as the methodology to identify those that are benefiting is sound and fair.

A council saw this principle as important in high-growth areas where many of the environmental costs from developments and land use are passed on to ratepayers.

6.6.8 In situ

Some ex-situ-focused conservation submitters did not support this principle as written, as it could lead to outcomes where threatened animals are left in situ until populations eventually dwindle and disappear. It also undervalues the work of many individuals and organisations; for example, kiwi are supported through ex-situ hatching and rearing through Operation Nest Egg.

One local government submitter said this as one of the most important principles, as in situ management is more cost-effective to implement than restoration or off-site relocation.

6.6.9 Connections

One conservation submitter said this principle could be used to require a comprehensive assessment of cumulative impacts or effects under the Resource Management Act 1991 (RMA) and the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ-CS).

6.7 Outcomes

Support was expressed by many submitters for the outcomes in principle, but proposed changes to words and phrases that reflected similar sentiments to those raised in the General overview. A few broader comments were also made.

One submitter said the proposed outcomes relating to managing non-indigenous biodiversity were irrelevant, as those systems are not under threat.

A few science submitters wanted to see measurable outcomes and goals that make distinctions between the different domains.

One science submitter suggested primary and secondary outcomes, with primary outcomes focused on healthy indigenous species and habitats to support them, and secondary outcomes to address management areas. Another science submitter said the outcomes were more descriptions of a desired future state than focused on addressing the systems changes.

6.8 Goals

Many submitters supported the goals in principle, noting that measures still need to be developed and it's difficult to elaborate without knowing more detail. Feedback was otherwise generally consistent with sentiments raised in the General overview.

A lot of feedback on this section related to implementation rather than overarching goals. Conservation submitters in particular provided varied feedback, much of which reflected their diverse interests and ideas about change. This included noting gaps and/or making comments on how the goals could be improved and further refined, particularly in relation to scope, ambition, timeframes and targets. The main gaps mentioned were in relation to mapping, marine environment, tree plantation, plants, economic transformation and tangata whenua.

A few submitters, including some councils, said there were a lot of priorities reflected in the goals, and were concerned this could impact on effectiveness. One submitter said the goals need to reflect national priorities for protecting and restoring species, habitats and ecosystems.

Some submitters, including a few conservation boards, said the goals should be aligned across initiatives such as the Predator Free 2050 strategy as well as management frameworks. Some submitters saw a domain- or risk-based approach to setting goals as useful to make better links between national directions and the multiple strategic frameworks (such as fisheries or the various national policy statements (NPSs)).

A few councils said a target date of 2050 is too late for many of our threatened species, habitats and ecosystems. One council said some of them will be gone or nearly gone by then if declines are not reversed much earlier. Another said there should be no further loss of indigenous biodiversity from 2025, and a baseline should be established to measure against. A further council said the ANZBS should make explicit that more losses of indigenous biodiversity are inevitable in the short to medium term under the ANZBS, or it should provide clearer goals about maintaining current extent and species population.

A few submitters noted there is no mention of people in the goals, despite people playing a key role in the success of the ANZBS. A few submitters said goals should consider people's values and perceptions over time. One submitter suggested social goals that are fundamental to achieving success should be included, along with appropriate methods of achieving these behaviour changes.

Some submitters, particularly councils and a few land-based industry submitters, said some of the goals are unrealistic and overly optimistic/aspirational. One council observed it would be hard to see some 2025 goals being achieved without current plans and baselines, noting how long draft plans take to develop. One submitter said the goals should not be focused on absolutes, and another said the goals are meant to be for all New Zealanders, but appear to be very Department of Conservation (DOC) focused.

A submitting council said the framework does not clearly articulate the two separate but interrelated functions of the ANZBS. Restoration, which appears absent in this section, should be a twin pillar of the ANZBS along with protection. This could be achieved by structuring the ANZBS around two separate categories of goals: those that will achieve protection, and those that will enable restoration.

6.8.1 Land mapping and protection goals

Some submitters sought more clarity on the use of 'significant' and 'protected' for this goal, noting the potential implications of this on management scope, costs, and litigation, among other factors.

Many industry submitters support mapping significant natural areas (SNAs), but said this will be complex, lengthy and expensive. One industry submitter stated mapping must be done on the ground to be accurate.

A few councils said it's important to identify priority species, ecosystems, and under-protected environments through this process, because many ecosystems can be impossible to restore once they have been damaged. One council said the idea of priority areas regardless of land tenure is critical, or New Zealand risks being unable to manage the areas that most need to be managed. This submitter said it is more important to legally protect private land than scale up programmes for privately protected areas as proposed. One conservation submitter said non-public land should be prioritised over public protected land.

One science submitter said information is needed about species distributions and ecological processes, as well as the mapping of the physical environment.

A local government submitter said identifying and protecting SNAs can have perverse incentives. This is because any site or area not mapped is perceived to have no value and can be developed. Likewise, the scheduling of all sites into a regulatory plan can reduce the perceived value of doing so. The problem is not whether sites are mapped or defined (noting this has not prevented loss in the past), rather it is the ability to actively enforce the protection provided through regulatory measures in district plans, or to develop community understanding on why these areas are so important. Sites on private land are still being lost and/or eroded at an alarming rate, regardless of scheduling and rules. Other measures can be more effective. This usually requires involvement and buy-in from landowners, ensuring there are no barriers to positive engagement.

The same local government submitter said while there is broad agreement that the inventory of sites is a critical first step in prioritising where resources should be directed, it must be recognised that mapping is expensive and beyond the ability of some territorial authorities and regional councils to fund and undertake in the required timeframe.

A science submitter said a goal added to create an inventory by 2021 of dunes of national significance, with these systems restored to full functionality by 2035.

6.8.2 Threatened species goals

A few submitters said a review of threatened species, including marine and freshwater species, is needed to inform planning. One submitter proposed a new goal so that by 2030 there is no lack of data on threatened species, and that recovery of at least 30% of our known threatened species has begun, with increasing populations. By 2050, no species should have threat classifications of ‘nationally critical, endangered, or vulnerable.’

A few conservation submitters said the expanded ex-situ conservation of threatened species needs to be assessed, and this should include the potential for expansion of indigenous flora seed banks.

6.8.3 Ecosystem and habitat restoration goals

One conservation submitter said the use of ‘decline’ and ‘protected and degraded’ should be clarified in this goal. A few submitters said the 2030 goal ‘no net loss’ amended, as it is otherwise misleading. ‘No net loss’ implies loss in one place can be reinstated somewhere else. However, ecosystems are rare and naturally uncommon, so their restoration is difficult or impossible. There should therefore be no further loss of the extent of rare and naturally uncommon terrestrial indigenous habitats.

Another conservation submitter suggested net loss should only be allowed in special circumstances where a direct offset is achieved before an area is destroyed.

Another submitter said a goal could be added to stop the removal of indigenous vegetation during all land development. After 190 years of largely unrestricted development, the time has come for this to be halted. This submitter was of the view that the use of the phrase ‘no further decline’ provides neither strength nor clarity in this regard.

A few submitters said a goal should be created to deal with sediment run-off. One submitter said the New Zealand Coastal Policy Statement (NZCPS) and National Policy Statement on Urban Development (NPSUD) are important for the delivery of this goal and should be referenced.

6.8.4 Marine ecosystems and species goals

Most marine industry submitters support the 2025 goals, including the mapping of marine ecosystems and establishing marine objectives and evidence-based priorities. However, they do not support the 2030 goal on Marine Protected Areas (MPAs), suggesting that it defaults to spatial protection tools rather than addressing the desired outcome or the actual risks to marine biodiversity.

A few submitters, including one conservation board and some conservation submitters, wanted more ambitious targets and timeframes for identifying priority marine areas and introducing no-take MPAs. One submitter also said the reference to ‘evidence-based’ should be removed from this goal, as most goals will be based on a mixture of scientific evidence, local knowledge, and mātauranga Māori. The inclusion of evidence-based may imply other goals aren’t.

Some submitters said the goal of zero bycatch by 2050 is too far away and needs to be brought closer. Some conservation submitters said 2030 was a more appropriate timeframe. Many marine industry submitters did not support the zero-bycatch goal, suggesting it would be impossible to achieve while providing for use. It also focuses on fishing and does not acknowledge other threats to seabirds and mammals. One marine industry submitter said a goal of zero harm was worth considering.

A few councils said additional measures focused on marine habitat and ecosystems are needed, as the 2050 zero bycatch will not focus on these important issues. One council said there should be a goal for moving to more selective fishing practice. A few submitters said bottom sea trawling should be banned, and one conservation submitter said a trawl footprint freeze implemented to avoid any new destruction of protected species on the seafloor and vulnerable marine ecosystems.

Some submitters suggested specific goals for protecting Hector's and Māui dolphins. Marine industry submitters said goals where the number of threatened species under threat are decreasing, and no species were nationally critical, would be reasonable to consider.

One conservation submitter suggested cumulative anthropogenic pressures/impacts on coastal and marine ecosystem must be managed within sustainable limits by 2025.

6.8.5 Coastal and wetlands goals

A few councils said there is a need for urgency and clarity with this goal area. One council noted rising sea levels and storm surges are causing a natural decline in the number and extent of wetlands. There is already evidence this is causing higher water tables further inland and creating new wetlands. Ecosystems under restoration need to be well on their way to maturity by 2050.

A few comments were made on priority areas. One council said goals should target areas that support indigenous wetland vegetation, or areas that function as wetlands hydrologically but are now dominated by exotic plants such as gorse and broom. Another said it is important to identify priority actions particularly in lowland, urban, estuarine and coastal areas where historic losses and ongoing drivers of decline are greatest. One submitted that surrounding land areas needed to be managed so they there is no further deterioration of the few and precious wetland areas. Two general public submitters said converting farm drains to lower nutrient loading and restoring wetlands as important.

6.8.6 Fresh water and catchments goals

One council submitter said waterways should be made front and centre of this goal. Another submitter proposed a set of goals so that by 2025 all degraded rivers are improving, and an action plan is in place for rivers resisting improvement. This submitter added, 'By 2030 all freshwater invertebrates (including those in groundwater) should be identified across major catchments. By 2050, the adult population of indigenous freshwater species should be increasing year on year.'

One conservation board said including catchment management in rohe environmental goals, with the intent of reducing cumulative impact and enhancing biodiversity outcomes, must be a part of the ANZBS if freshwater trends are to be reversed. A goal should be added on improving water quality.

6.8.7 Predator and browser goals

Some submitters said this goal needs to be made more realistic. One submitter said in some cases eradication may be difficult, due to cost and location. Management of predators may be more appropriate. It is important to realise there are many ways to achieve outcomes. One land-based industry submitter said habitats of significant biodiversity co-exist alongside predators in the Macquarie Basin. Eradication of most pests in this open environment is unrealistic due to cost, as well as environmental and geographical constraints. One plant conservation submitter noted that in the case of the Predator Free 2050 strategy, there may be unintended flow-on effects for conservation. One science submitter suggested the goal to free New Zealand from stoats, possums and rats by 2050 should be replaced with 'By 2050 species will be self-sustaining in the presence of pests and predators, or safely protected behind fences and on offshore islands.'

Some submitters said the scope of this goal needs to be extended. Conservation submitters in particular said that stoats in the 2050 goal should be replaced by mustelids. Some submitters said the goal should include a broader range of predators and browsers, including feral browsing mammals and ungulates (such as cats, wallabies, pigs, goats, tahr, chamois and deer).

A few submitters said this goal should apply across all public conservation land and other high-value biodiversity sites. Others sought clarity on whether the goal referred to statutory nature reserves as defined in legislation, and whether 'non-indigenous' should be applied to both browsers and predators, as there are also indigenous predators.

Some conservation submitters said the Predator Free 2050 target should be aligned to this goal. One submitter said new targets should also be created around land area that is predator free and protected from reinvasion.

A few submitters did not support this goal. One community and recreation submitter stated that eradicating all non-indigenous browsers from all offshore nature reserves by 2025 does not acknowledge the value of animals to hunters, especially the North American Whitetail Deer on Stewart Island.

One community and recreation submitter suggested a new goal is added so that bykill of indigenous and non-target non-indigenous species during pest control operations is reduced to zero and pest control operations use methods that minimise suffering of target animals. This will drive better protection of non-target species, who currently are commonly killed in pest control operations, and more humane treatment of other target species.

6.8.8 Land-based weeds and freshwater pest goals

Many submitters across all groups said that a goal to eradicate 'freshwater pests and land-based weeds' should not be based on an arbitrary number. Different regions have different weed species and a 'one size fits all' approach will not work. One conservation submitter said priority weeds should include species that threaten significant ecosystems across a broad geographic range in New Zealand.

A few submitters said marine pests should be included in this goal. One marine industry submitter said the Biosecurity Act and standards, such as the craft risk management standards and proposed national environmental standard (NES) Marine Aquaculture, are important to the delivery of this type of goal, and should be referenced.

One submitter said an additional 2030 goal should be added that all invasive weeds are eradicated from offshore island nature reserves and other priority hotspots. Another submitter said wilding conifers should be eliminated from public conservation land and other high biodiversity value sites by 2030.

A few submitters sought clarity on how 'hotspots' will be determined for this goal, and whether this extends to private land.

6.8.9 Tree plantation goals

Some submitters said additional goals should be added to plant native trees rather than non-indigenous species. One conservation board stated 20 million native trees should be planted by 2050, which would support climate change measures.

A few submitters also said targets should be set for maintaining and increasing tree and forest canopies. One submitter said that all regions should have rules by 2050 to preserve and protect remnant flora and trees greater than 50 years old that are endemic to their ecological area.

6.8.10 Urban areas and productive land goals

Conservation submitters suggested some new goals are added to enhance urban biodiversity. One submitter said that by 2030, urban biodiversity should be enhanced in every major centre by at least 30% and Wellington should be the 'greenest city in the world'.

Another submitter suggested adding a goal so that by 2030 there is a 50% increase in biodiversity corridors across urban and productive landscapes, and a further 50% increase by 2050. One submitter said a specific goal to create a forest and tree canopy in Auckland should also be included in the ANZBS.

6.8.11 Climate change goals

One conservation board said more ambitious targets for greenhouse emissions are needed, or the costs of economic activity will continue to be externalised onto others. A council said a goal should be added to address biodiversity loss through climate change mitigation and adaptation. For example, carbon stocks in indigenous biodiversity have increased by a certain amount or percentage by 2025.

Some submitters suggested amending this goal so that by 2030 climate change risks to marine biodiversity are being effectively managed and incorporated into all marine planning and management frameworks.

A plant conservation submitter suggested amending this goal so that the effects of climate change on plants is integrated into ecosystem and species management plans and strategies by 2025, as plants are particularly vulnerable to sea-level rise, changes in rainfall patterns, and shrinking alpine habitat.

One submitter said a goal should be added so that by 2025 all agencies make a commitment in their annual plan to reduce their carbon footprint by more than 10%, and that this is reported on in their annual report. Also, most regional councils across New Zealand should have adopted Water Sensitive Urban Design as mandatory for all new and upgraded buildings and infrastructure.

6.8.12 Goals related to Treaty partner

All Treaty partner considered that the 'vision' and 'goals' of the ANZBS need to reflect the principles of the Treaty, and the strategy needs to support Treaty partner to determine and articulate their own aspirations and priorities for the biodiversity system in their takiwā, alongside opportunities to contribute to DOC's goals.

Some Treaty partner state that a priority action should be establishing co-management and co-governance in conservation areas of high value to Treaty partners; developing and implementing any protection mechanism must be done in partnership with Treaty partner; and protection mechanisms, such as MPAs or marine reserves, must not impede the rights and interests of Treaty partner.

One conservation submitter proposed a set of goals so that by 2025:

- The te ao Māori perspective is embedded into the system and Treaty partner empowered as kaitiaki
- Mātauranga Māori is driving biodiversity management from local to national levels, and Treaty partners are key decision-makers at all levels of governance and management

- Treaty partner are involved in setting up local biodiversity hubs and there are opportunities for iwi/hapū to contribute to enhancing local ecosystem wellbeing, cultural survival and knowledge development
- There is a programme to facilitate graduates to move into roles at DOC and other organisations
- Māori are funded and supported to tell their conservation stories and share successes in indigenous approaches to conservation at international fora and conferences.

By 2030:

- The mauri, mana and wellbeing within ecosystems is enhanced
- Tangata whenua are exercising their role as kaitiaki, which includes support to help them manage and monitor local indigenous species, as well as enhanced mahinga kai and cultural take
- Māori-led restoration and research methods, which may be supported by science and innovative technology, are encouraged.

One science submitter said a goal should be added so there is increased involvement of iwi and scholars of mātauranga Māori in the care, development and use of collections. This will further integrate Māori cultural concepts in New Zealand society.

One submitter said there should be no customary take of indigenous birds and threatened species.

6.8.13 Community and education goals

A few submitters noted there are no goals related to the number of people being engaged in restoring nature, to support the empowering communities shift. These submitters proposed goals are added so that there are 100,000 active volunteers by 2025, and one in every 10 citizens by 2050.

Another submitter proposed a set of goals so that by 2025 a network of biodiversity hubs is set up across New Zealand, and that the value of biodiversity and participation is built into the education system at every level. By 2030, communities should be actively engaged and empowered to restore and protect biodiversity, and every school is engaged in biodiversity restoration activities and schools collectively achieve a biodiversity net benefit of at least 30%.

One submitter said there should be a goal focused on proving the benefits of communities in delivering biodiversity outcomes.

6.8.14 Economic and business goals

A few industry submitters said the goal for committing business to biodiversity by 2050 generally lacks meaning, aspiration and urgency. A few submitters didn't want to see farmers targeted in the 2030 goal, as all business, not just farming, may have an impact on biodiversity. A few submitters said the 2050 goal should be made broader so that every New Zealander is helping to restore nature, such as individuals, farmers, iwi, communities and businesses, not just every business.

One council said that goals should be added for each sector encouraging them to act as stewards of nature. A submitter had questions around how business goals are enforced.

A few conservation submitters suggested bringing forward the goal on achieving biodiversity outcomes as a part of standard farming practice to 2025, as it is fundamental to other goals. This goal needs to acknowledge that farmers are supported to achieve biodiversity outcomes, rather than solely establishing a regulatory framework.

One community and recreation submitter suggested a new goal is added around ecological enterprise or ecological economy that would allow for increased employment in the environmental space.

One submitter suggested measures could be added to these goals that monitor the effects of economic activity on biodiversity such as triple bottom-line accounting, or allocating a specific percentage of revenues to environmental goods.

A few submitters proposed new goals are added so that the value of biodiversity is fully accounted for in the economic system. One submitter suggested goals and supporting actions so that by 2030:

- National economic reporting takes full account of value of biodiversity (economic, intrinsic, and for social cultural wellbeing). The net benefit and costs to biodiversity from economic activity is a key objective of national accounting and reporting.
- The value of biodiversity is central to national, regional and local economic development strategies, poverty reduction strategies, planning processes, and accounted for in natural resource-use decision-making.
- Top banking and financial institutions are committed to and driving economic transformation to a green economy and sustainable financing of biodiversity restoration and protection.
- Effective biodiversity restoration and protection activities are supported/linked with sustainable funding from private and corporate sources.

One conservation submitter suggested adding a new goal so there is no further mining on public conservation land by 2025.

6.8.15 International goals

Comments on international goals varied. One submitter noted that New Zealand is already acknowledged internationally as a source of biodiversity and restoration know-how. It is unclear how any change to the status quo would be measured.

One submitter said Treaty of Waitangi partners should be a part of New Zealand delegations and teams working on international agreements such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the CBD. Another said a goal should be established on providing international development aid, particularly to the Pacific to restore and protect their natural resources. One submitter said legislation should be introduced by 2025 to regulate importing of products contributing to biodiversity loss overseas.

One general public submitter wanted to see an aim to repatriate all overseas taonga by 2050.

6.9 Implementation and monitoring

Most submitters said implementation and monitoring is critical. However, they noted there are gaps in the discussion document about how the ANZBS will be further developed, funded, managed, monitored and enforced.

6.9.1 Funding and resourcing

Funding and resourcing are a particular concern for most submitters, with many noting that the ANZBS is silent on this. Many councils expressed concern about implementation and monitoring costs. One submitter said councils vary in terms of their capacity and capability to deliver the ANZBS. This is particularly the case in areas with large land masses, extensive biodiversity and/or small rating bases. Many councils indicated long-term funding and support is needed and this should come from central government.

Funding by industry was also raised by a few submitters. One council stated two of the country's biggest export earners, tourism and primary production, rely on the ecosystem services that thriving biodiversity provides. Resourcing should reflect this. A few submitters, however, noted that the benefits of businesses go beyond industry supporting the general wellbeing of New Zealanders. One industry submitter thought consumers should share the costs of transitioning economies.

A few submitters supported broader fiscal tools such as payments for ecosystem services, pollution taxes, tourism levies, rates relief, offsets and biobanking to set better incentives and disincentives for protecting and restoring indigenous biodiversity.

6.9.2 Priorities and trade-offs

A few councils said that the ANZBS needs to be clear that as a country, we can't have it all. There will be costs and some things need to be given up so indigenous biodiversity can be the focus. There is a risk that the ANZBS will otherwise be everything to everyone.

Some conservation submitters said improved funding and accountability frameworks would provide more confidence to philanthropists and others about their investments.

One council said making trade-offs may include taking away funding from initiatives that do not support priorities or involve unrealistic targets. Another submitter noted this type of approach is different to the current system, which is more of a 'save everything' approach. This spreads our collective resources too thinly.

Some submitters, including a few industry submitters, said the ANZBS should be underpinned by a priority and assessment framework that considers risks, complex trade-offs and least cost. A few submitters wanted to see this assessment consistent with the National Policy Statement on Indigenous Biodiversity (NPSIB).

Another submitter said it is important to ensure that resources are not consumed by convoluted planning and management processes.

6.9.3 Reviews and reporting

Many submitters supported five-yearly implementation plans and reviews. However, some said there is still a need for regular and transparent monitoring and reporting. This will support accountability and provide some flexibility to adjust priorities if needed. One science submitter suggested this should be an annual process. Another submitter thought an infographic format could be used to communicate progress.

A few submitters said the five-yearly reviews of the implementation plan should include a rebasing of targets that have not yet been met so that the new plan is not built on failed targets.

Other submitters suggested that the review of the ANZBS should be apolitical and independent of central government. A possible option to ensure a fair and transparent appraisal of the progress and implementation is oversight by the Parliamentary Commissioner for the Environment.

A few councils said existing national reporting systems could be utilised for monitoring under the ANZBS, such as the Environment Reporting Act 2015.

Some councils said that they are already required to contribute to regional monitoring to some extent under the RMA, but many have limited capacity for this. One district council stated it is a real issue for smaller district councils where lots of development is happening. It suggests that monitoring under the ANZBS fits better at a regional level.

Some submitters had an expectation that reporting and consultation on the ANZBS will be ongoing, although a few submitters noted the risks in delaying action through too much engagement. One submitter suggested consultation only needs to occur when the five-yearly implementation plans are being updated. Another submitter said ongoing consultation supports momentum and commitment; that submitter considered it important that processes are in place to ensure the ANZBS remains relevant, current and can be modified as new developments arise.

6.9.4 Measures and targets

Many submitters said it is critical that the ANZBS goals are measurable and realistic for monitoring to be useful. Some submitters said the SMART methodology (specific, measurable, attainable, relevant, and timely) should be used to set all measures and targets. Some submitters noted the need to establish baselines as a priority. One submitter suggested a 2025 goal is set for establishing this.

A few industry submitters were concerned the measures will remain focused on processes rather than outcomes. One submitter suggested an advisory committee is set up to feed into this process.

One conservation board considered there is a need to develop an outcomes and performance framework with specific measures and targets by species and ecosystem types across domains. This would be granular enough to identify risks and set regional directions, and should include behavioural targets to ensure human and land use impacts can be considered together.

A few submitters said it is important that measures are embedded into government performance measures, including the Living Standards Framework and Wellbeing Budget. One submitter said reporting should rely on indicators or information that is already collected by government or councils, and should not place a high additional burden on small groups. A few submitters stated that information and monitoring should be linked to the data commons.

One local government submitter noted that there are gaps about the state of biodiversity and trends in New Zealand. Councils and agencies are already working on this, but more needs to be done to understand monitoring across national, regional, and local levels. For example, the current picture is focused on public conservation land, and doesn't consider losses on private land, providing a false picture.

A few conservation submitters said measures used to monitor public perceptions and support. One submitter said the most important thing to track is public and industry awareness and active involvement with the plan, and support for its finance. One conservation submitter said a simple online survey should be introduced to assess how well iwi rights and interests are respected and

enabled, and what the key barriers and opportunities are to better enable practice of kaitiakitanga, with the purpose of establishing baseline data to monitor progress.

Another conservation submitter said overall engagement with nature should be tracked over time, along with awareness of the plight of our native species and causes, and the number of people taking actions.

6.9.5 Compliance regime

A few submitters said a compliance regime is needed to enforce the ANZBS. One suggested local government should be empowered to properly enforce regulations rather than rely on biodiversity strategies, which are often non-regulatory. A few community and recreation submitters said regional councils need significant improvement in their monitoring and enforcement measures. One general public submitter said watching non-compliance of councils was important. A few submitters stated the ANZBS should be established in legislation to support enforcement.

A few submitters said support provided to conservation groups to help them with legal challenges that otherwise divert their resources from core conservation work. One submitter said it's important that legal protection through covenanting is also considered as well as physical protection. They considered while legal protection through covenanting is preferred for securing indigenous biodiversity on private land, ensuring legal protection can be defended is also important. That submitter considered the ANZBS must recognise that those charged with protection need sufficient resources for litigation when faced with serious threats to protection.

A few conservation submitters said that all fishing vessels should have onboard cameras and/or observer coverage to support compliance activities in the marine environment.

6.10 The five system shifts

Many submitters supported the five shifts in principle, noting that many of the priority initiatives under these shift are already under way to some extent. However, some submitters are concerned the shifts are not enough. Some submitters proposed an additional shift, focused on transforming the economic system. At least one submitter suggested a standalone shift for business could be introduced into the framework. The sentiment of this feedback is consistent with that provided in General overview.

One industry submitter said the empowering shifts are complementary rather than critical, and they are wary of the risks of transferring decision-making to communities and sectors that may not represent New Zealand's wider interests or have the appropriate information with which to view competing interests.

A few councils and conservation submitters said the shifts need to be supported by significant cultural change, and a recognition that people have a far greater capacity to be flexible than most species and ecosystems.

6.11 Shifting the system

There was support from many submitters said they support for this shift, noting that is critical to enabling the other shifts. One submitter said success of the ANZBS is dependent on the speed at which this shift can be implemented.

6.11.1 Roles and responsibilities

Many submitters stated that recognising and clarifying the diverse roles and responsibilities of different interest groups, sub-groups and people involved with the ANZBS is essential to implementation. Feedback generally reflected that this should consider the roles and responsibilities of:

- Government agencies, including non-traditional conservation agencies and Crown entities such as the Ministry of Business, Innovation and Employment; the Ministry of Housing and Urban Development; and New Zealand Transport Authority.
- Treaty of Waitangi partners including iwi, hapū and whānau as well as mandated representative groups established through settlement deeds, where relevant.
- Regional/unitary councils and district/city councils and industry groups.
- National and regional statutory conservation boards.
- Industry groups and businesses, particularly those involved in primary industries, tourism and conservation, including both large and small businesses.
- Independent institutions, scientists and experts such as universities and scientists.
- Non-governmental organisations (NGOs), including both large and niche NGOs.
- Community and recreation groups.
- Philanthropists.
- The media.
- The general public, including consumers and tourists.

Marine industry submitters, however, said this recognition should be limited to clarifying responsibilities rather than duplicating responsibilities and changing roles.

6.11.2 Strategic alignment

Many submitters noted the many management frameworks that the ANZBS is linked to and the many initiatives currently being developed under these frameworks. For example, this includes:

- The various management frameworks already established in legislation such as the Climate Change Response (Zero Carbon) Amendment Act 2019, the Resource Management Act 1991, the Local Management Act 2002, and the Waste Minimisation Act 2008.
- The various legislative reviews currently under way, such as the Biosecurity Review and the Crown Minerals Act Review.
- The various national policy statements that are already in place and may also be under review, such as the NPSs on indigenous biodiversity, freshwater management, coastal management, urban development capacity, and highly productive land.
- The various programmes that support the ANZBS and are already being implemented, such as the Predator Free 2050 strategy and One Billion Trees Fund.
- The various public sector frameworks that support good public management, such as the Treasury's Living Standards Framework.

Many submitters said that while they generally support strategic alignment and a more integrated management approach, they seek more clarity about the links between the ANZBS and all these frameworks and initiatives. This should consider the roles and responsibilities across central and local government.

Some of these submitters noted the potential adverse impacts of misalignment, such as duplicated planning processes and plans, inconsistent decision-making, inefficient resource allocation and litigation. This limits efficiency and effectiveness. One science submitter said the biggest implementation challenge will be coordinating and harmonising the various spatial divisions in terrestrial, marine, and freshwater environments.

Many submitters support the need for a review of these settings, although one industry submitter said these type of reviews should generally be avoided to reduce the uncertainty and investment risks that come with regulatory churn. While many submitters saw this as an urgent priority, one submitter said it should not be rushed. Views on what a review could entail varied, reflecting the diverse interests of submitters. These views are consistent with some of the issues identified by submitters under management issues (see Key pressures and drivers of indigenous biodiversity loss).

A few submitters suggested that a diagram showing the relationship between the various management frameworks, initiatives and stakeholders would be useful.

6.11.3 National Policy Statement on Indigenous Biodiversity (NPSIB)

Many submitters commented on the relationship between the ANZBS and NPSIB. Some submitters said they were confused about the linkages between the ANZBS and NPSIB, given these are being developed at the same time. A few submitters said implementation of the ANZBS will largely depend on the NPSIB, which is being developed in parallel.

One local government submitter was concerned the NPSIB will establish roles and responsibilities ahead of the ANZBS consultation process; and will also be seen as the only tool to deliver the ANZBS. Another submitter said that regulations aren't always needed, as rules can be vulnerable to political whims if the public are not committed to long-term reform.

A few submitters suggested a diagram that shows the relationship between the ANZBS and NPSIB would be useful.

6.11.4 Regional planning

Many submitters noted the important role that councils will play in implementing the ANZBS. While many submitters saw benefit in a nationally consistent planning framework with regional planning

mechanisms, they said it is important that plans reflect the different needs of regions, and a 'one size fits all' approach is not appropriate. Local government submitters indicated it is imperative that they are further engaged on developing this framework.

A few submitters, including some conservation boards, said legislation should be put in place to support the ANZBS planning framework, noting links should be established with other relevant frameworks and regulatory tools such as the NPSIB. One submitter said that clarifying roles and responsibilities in legislation will resolve conflict and confusion. Another submitter said the key will be getting consistency across the many local authorities. However, a few local government submitters noted there are risks with taking a prescriptive approach to regional planning. One local government submitter indicated regions need the space to develop collaborative processes and strategies that reflect the culture and capacity of their communities.

Many submitters said more clarity is needed on strategic alignment across management frameworks and initiatives. One conservation submitter wanted to see regional plans linked to regional hubs to support collaboration and common goals. Another submitter said regional pest management plans under the Predator Free 2050 strategy should be integrated into regional biodiversity strategies to protect investments made in predator control and eradication.

6.11.5 Governance

Many submitters support the need for a governance structure in principle, to ensure accountability across successive governments and tiers of government, as well as monitoring, compliance and decision-making.

A few local government submitters said that robust governance is needed from the start, to inform effectiveness and review. The structure should be clear on purpose and responsibilities, including relationships with other related structures, and have representation across the system, particularly from regional and unitary authorities. It should also clarify how co-governance and co-design will work. A few general public submitters and at least one council suggested this could be done through existing agencies rather than new bureaucracy. However, some effort needs to be focused on understanding and addressing cultural, structural or systemic barriers to working together.

One local government submitter said it will be challenging for New Zealand to be clear how the ANZBS will be achieved, and whether it is succeeding, without strong leadership. It is important that governance options are investigated. This should include consideration of a national biodiversity management authority comprising all major statutory and financial stakeholders, and local government and iwi representation. This would include:

- A governance role that includes an advisory and oversight function of the changes required to enhance performance and ensure ongoing clarity of roles and responsibilities.
- A limited management role in establishing priorities and coordinating delivery against priorities, as well as raising awareness of issues, providing financial support for biodiversity across all sectors and overseeing the national response to monitoring.
- Recognition of the roles and functions of any new entity in statute and a clear mandate with a line of accountability to government ministers.
- Leadership arrangements at the sub-national level that encourage collaboration, including in the planning, prioritisation and implementation of specific projects.

One community and recreation submitter said that if new structures are developed to facilitate community participation, they need to be developed with the community. A few submitters said that any interim governance structure should include representation from across the spectrum of

interests. One conservation submitter suggested an independent science advisory group should be established to manage risks of sector-capture from those with vested interests. One science submitter, however, did not support collaborative arrangements, as they feel that perfectly competent arrangements already exist within DOC and through local government. One general public submitter suggested a body like the New Zealand Planning Council should be established.

6.11.6 Leadership and coordination

Some comments were also made on who should lead implementation. Some councils and conservation submitters said that while implementation requires a collaborative approach, there still needs to be an agency with overall responsibility for leadership, coordination and accountability. This lead agency should be identified in the ANZBS and be given the mandate to do its work.

Some submitters suggested DOC should lead the ANZBS. However, others said it is unclear where the leadership will or should come from, and question whether DOC should play this role. One local government submitter stated that one of the issues with DOC leading the ANZBS is that it is largely focused on public conservation land, and doesn't generally engage in significant and sustained management of species or ecosystems beyond this. The functions of regional councils, by comparison, are not limited to any controls, and have largely developed without significant direction.

One submitter said reform should consider administrative arrangements across government and assess whether the current structure and arrangements are best placed to deliver optimal outcomes.

6.12 Empowering mātauranga Māori

Many Treaty partners considered that mātauranga Māori needs to be embedded right across the ANZBS, including mātauranga built at a local level. As mātauranga is alive at a local level, it is most valuable in practice rather than at a national strategic level. Treaty partner described mātauranga Māori as knowledge and wisdom; that it has a cultural and local context, so there are protocols for using and sharing it.

Some Treaty partner attendees at hui stated that rongoā is a key opportunity, with possibilities in the commercial sale of rongoā-based products. Being able to access species for rongoā practice was an issue in some cases.

Most submitters supported this shift. One industry submitter said this shift will be new to many of its members but is encouraged. Another industry submitter supported it as long as the action is not to the exclusion of other interested parties.

A few submitters, including some councils, said the ANZBS needs to be more explicit about what will actually be delivered through this shift. One submitter indicated they found it difficult to assess the validity of this section as there is very little information about the practice of mātauranga Māori in the public domain. For example, how have iwi, hapū and whānau been exercising mātauranga Māori on the lands and waters where they have already have more influence and control, be it freehold, joint title, or Ngā Whenua Rahui?

One council highlighted that 80% of Māori live in urban areas, essentially mirroring statistics for the wider population. Urban areas are where mātauranga Māori and kaitiakitanga can be practiced in a way that is accessible to all, and can support reconnection to biodiversity heritage. This should be reflected in the shift as a priority focus.

6.12.1 Governance

Some submitters, including some boards and councils, supported having Treaty partner in governance roles. However, a few submitters said more clarity is needed on what a partnership model between tangata whenua and the Crown looks like.

One industry submitter noted that in some cases there is no accepted view from Māori on the right balance between protection and use.

6.12.2 Capability and capacity building

Some submitters said capability and capacity building are key, and support should be provided. One board said there is a need to build capacity and capability across society to better support Treaty partners. This includes providing funding and support, and reviewing legislation as a priority. One council said this shift should include a focus on developing Māori capacity to contribute to national, regional and local conversations, and to take actions. This should include building policy capability as well as practical conservation skills. One science submitter said environmental agencies could provide opportunities to young Māori such as mentoring, scholarships and cadetships.

One submitter said there is an action proposed to support Māori to contribute to international biodiversity conversations, but no similar action to support contributions to those conversations within New Zealand. Ensuring there are adequate resources to enable local iwi to participate in relevant projects, programmes and meetings is essential to avoid problems like consultation fatigue.

A few submitters, including one council, said that councils could play a role in supporting iwi to develop management plans. One council said that where plans don't already exist, councils should be resourcing iwi to develop them. One submitter said support should include helping iwi to write plans.

6.12.3 Collaboration

Some submitters saw a new role for them working with Treaty partner. One conservation submitter said the nature of the partnership between the Crown and Treaty partners and the Treaty of Waitangi settlement process means the wider public has not had a chance to engage with Treaty partner.

Some submitters said support is needed to help communities develop new relationships and ways of working with Treaty partner. One conservation submitter saw the current lack of knowledge and understanding as a barrier to engagement with Māori. Provision of adequate resources for Māori to provide training and guidance in this area would be extremely useful, as would funding and support to help the community engage.

Another conservation submitter said there is a need to integrate views in a way that honours the Treaty of Waitangi and ensures the health and persistence of our unique biota. The submitter considered that a useful first step could be hui involving key conservation groups, government, and iwi conservation leaders, to more usefully understand how this integration could occur. They added this would need to be followed by a way to win the support of the many people who are engaged in conservation initiatives across the country. The submitter also considered that the ANZBS breathes life into this opportunity, and is already modelling a useful relationship.

6.13 Empowering communities

Most submitters supported this shift, with one board noting it gives recognition to the many community groups that are already actively supporting biodiversity. However, it is important that the ANZBS better reflects the range of stakeholders involved; and the work they have already done at smaller (and larger) scales, and the different roles these stakeholders could play in the future.

Many conservation submitters said it is important the ANZBS recognises the advocacy work NGOs do, as well as the opportunities for them to take on new roles. The ANZBS should find ways to empower this grassroots advocacy work. One conservation submitter saw this shift giving communities the opportunity to take on roles that might traditionally be the domain of agencies. One science submitter said there should be consideration of ways to address community groups competing for funding. One general public submitter was keen to see support provided to community groups to help them with business cases.

Many community, recreation and some land-based industry submitters expressed similar sentiments about being recognised for the work they do in conservation. One industry submitter said it is important they are considered as contributing to the solution, as well as the problem.

Some submitters noted the important role volunteers already play in community conservation, but a few submitters said it is important not to rely on this. One science submitter said DOC should not heavily rely on the community, as the situation was well past a community crisis approach. One conservation submitter stated volunteer burnout is a real issue, and a few said that proper funding and support is needed for volunteers. One submitter said this should be a priority action.

A few submitters discussed how this shift is critical to managing and resourcing biodiversity in urban areas, but urgency is needed. One council stated direct experience of nature is what will win hearts and minds, and lead to some of the behaviour change needed under this shift. However, it would prefer to see some more direct action. After 20 years, much of the thinking has been done; New Zealand is at a point where action can be taken.

6.13.1 Biodiversity hubs

Many submitters supported the use of biodiversity hubs under this shift as essential for bringing together iwi, landowners, agencies, community groups, local authorities, NGOs, and individuals to coordinate biodiversity action. However, submitters note that the success of these hubs are heavily dependent on sufficient funding, implementation, and the recognition of stakeholders as empowered partners. Some submitters said it is important they are about communities, not government.

Some land-based industry submitters saw various expert roles they could play in regional hubs, such as developing partnerships with landowners and providing community advice. A few industry submitters said funding and tools should be provided to help industry contribute to hubs, while others said they could provide business expertise.

A few submitters noted that hubs are already operating in some areas, and these could be leveraged. It is not necessary to reinvent the wheel in all cases.

A few submitters said that hubs should be underpinned by social innovation frameworks and citizen science.

6.13.2 Education and awareness

Some submitters agreed that mainstreaming nature and getting public support is critical, while some noted the importance of education and awareness initiatives as part of this shift. One submitter indicated there should be more focus on education for all, including schools, businesses, tourists and immigrants.

A few submitters said that education is a key element of the ANZBS, and more alignment between DOC and the Ministry of Education is required to ensure indigenous biodiversity forms part of the curriculum. One submitter said providing training/workshops at a national level would be beneficial. Many supported the development of online portals and information sharing.

One science submitter said an information pack for communities should be prepared, outlining the different legal protection options available to them, how to engage with regional councils, unitary and territorial authorities, and the demarcation between different statutory bodies.

One industry submitter stated good media relationships should be developed to help build support, particularly in some industry-focused areas that are sceptical about environmental initiatives. Another said this shift should leverage off existing environmental initiatives.

6.13.3 Empowering businesses and private landowners/rightsholders

Some submitters were concerned that there wasn't enough focus on industry in this section. One submitter said there are currently no priority actions related to engaging with businesses or increasing the number of businesses taking actions.

Some submitters saw a need for incentives to be prioritised, rather than disincentives. Many land-based submitters said, that in some cases, restricting land use development may increase the decline in biodiversity, as there will be reduced income from farm operations to spend on weed and pest control. Off-setting, off-site migration, and compensation for unavoidable residual adverse effects should be options. It is not necessary for every species and habitat to be preserved.

Marine industry submitters noted that quota rights already provide industry with a good incentive for sustainable use. One marine industry submitter said that compensation could incentivise them to surrender their rights under some circumstances.

Some submitters, particularly councils, considered the use of offsets unacceptable, as it results in reduced biodiversity over time, and clarity is needed on this issue. One submitter said mitigation or offsetting is not always effective or appropriate, and is problematic to implement. Another said offsets compensating for habitat loss attempt to balance one loss with gain of another kind, and contributes to biodiversity loss by weighting/ranking habitat value.

One submitter said improved rights to enter private property where populations of threatened plants may be at risk would be a helpful. Rights of access may also be important if comparative biodiversity values need to be assessed as part of negotiating offsets.

Many submitters agree there are perverse incentives that currently limit individual landowners from conserving indigenous biodiversity. Some submitters, including many councils, said property rights need to be respected, and they support incentives to private landowners for the protection of biodiversity on private property where there is significant benefit for the wider community. Some submitters, including many councils, said the focus should be on working together rather than imposing action. One council observed DOC needs to be careful about placing obligations on private landowners, so existing and future grassroot initiatives are not alienated. This sentiment was generally supported by land-based industry submitters.

Many submitters noted that rates relief is an option in some areas, and making this widespread could be useful. However, in many cases the relief will still be too small to be an incentive, and may not even offset costs. Some councils noted there are also issues of fairness for other ratepayers, who would need to bear the rates shortfall. This is particularly an issue in large rural areas with small populations. A few submitters suggested there is a public good element here that needs to be considered. One submitter said this priority would require scaling up of the Nature Heritage Fund to buy property or to support to landowners.

In addition to financial incentives, a few councils and conservation submitters said there should also be recognition and support of land and resource owners who are doing good things for biodiversity.

One science submitter said biodiversity ambassadors could be used to provide free independent advice to farmers and iwi. A number of forestry industry submitters also saw a role for themselves in assisting landowners with land conservation.

A few boards and other submitters said more focus on all primary industries, and not just farmers, is needed. One board stated that businesses have one of the most significant impacts on environmental degradation in New Zealand, and are being encouraged to engage with biodiversity initiatives. There need to be incentives, support and regulatory/legislative frameworks in place to build on this.

Many submitters stated that incentives are needed for planting native trees over non-indigenous species. Forestry industry submitters noted they will increasingly be asked to comply with climate change approaches.

6.13.4 Empowering recreational stakeholders

A few councils said recreational stakeholders need to be empowered. One council said that it's important to acknowledge that for some ecosystems like wetlands, the game bird hunting community has made an enormous contribution to the protection and management of wetlands. There will be opportunity for game hunters to become more involved in managing other areas of lesser biodiversity importance. Canada and the USA provide good examples of where this is being done well.

6.13.5 Youth perspective

Many youth submitters provided comments that relate to this shift. Many said they consider New Zealanders' attitudes towards the environment and sustainability to be improving. For example, they have seen fewer plastic bags in circulation, and more people taking advantage of reusable solutions. Suggestions for how New Zealand might improve its levels of biodiversity included education programmes, each individual taking more responsibility for their environmental impact, and businesses stepping up to play their part.

6.14 Connecting ecosystems

Many submitters supported this shift, noting the importance of being able to manage across ecosystems and catchments to build climate change resilience and manage key pressures at different scales.

One science submitter noted that the links between the land, fresh water, and the marine environment are critical for understanding the impacts of multiple stressors and cumulative effects. Many submitters supported the mapping of ecosystems and catchments as an important part of this shift. One science submitter suggested a shift away from targeted species recovery to focus on ecosystems.

6.14.1 Integrated catchment planning

Some councils particularly supported integrated catchment planning, and noted this is already happening. One council said sub-regional strategic planning, like integrated catchment plans, can be more effective at identifying local priorities. This may get more concentrated efforts in smaller areas, which are more tangible to local communities and feel more achievable. A few councils said this approach requires understanding of cross-boundary issues, as catchments often traverse local government boundaries. One submitter said this shift gives greater mandate for local government staff to work across jurisdictional boundaries.

6.14.2 Marine ecosystems

A few conservation submitters said there are significant gaps with marine priorities under this shift, and expressed the need for urgency. One submitter said only two of the 10 priority actions under this shift are related to the marine environment, and these are both medium-term priorities. One conservation board said clarity is needed on the outstanding marine work programme under the 2000 NZBS. One council said the MPA work programme and Sea Change should be a priority. Another board and a few councils stated there needs to be more focus on freshwater and coastal areas, including harbours, in this shift.

6.14.3 Biodiversity corridors

One conservation submitter noted the importance of this shift for plants. Unlike animals, plants cannot move about as individuals to escape harm or find new habitats, but move generationally by dispersing seeds and propagules. Biodiversity corridors are critical to ensuring plants can interact with their often highly specialised pollinators and dispersers, and genes can flow freely between populations.

A few submitters, including councils, said the ANZBS should prioritise the building of pest-free safe havens that allow for easy migration of native birds across the country, especially through urban areas. There is an opportunity to plan for forest corridors within new developments. However, one council noted there are limited opportunities to plant trees within intensive developments, due to section sizes.

Some submitters, including councils, said this shift should reprioritise the planting of exotic species with native species, under the One Billion Trees Fund. One council noted the window to influence where and what trees are planted is closing fast. This programme is advanced, and a biodiversity lens must be applied to all remaining applications. Another council said it has experience in removing pine trees and restoring them with native forest. The results of this restoration have been good, and it is hoped this can lead to a new ecological corridor. One submitter said more consideration should be given to combining areas of long- and short-term tree species rotations. Some submitters suggested that planting along waterways to provide connective buffers should be prioritised.

6.14.4 Farm plans

A few submitters supported integrating biodiversity management into farm plans. However, a few councils did not think farmers should be targeted over other land users. Urban land developments and other forms of primary and industrial production should also be integrated. One industry submitter said integration of biodiversity into farm management plans will need to be supported by expertise and resources.

6.14.5 Enabling innovating

Many submitters supported this shift, with one board noting that it will help manage climate change pressures. However, some submitters suggested the priorities are too focused on establishing better data management and research, and some submitters said this shift does not go far enough in addressing and prioritising climate change.

Some marine industry submitters stated this was the most important shift, as there is a significant lack of knowledge and science, as well as investment, in natural resource innovation. This shift will help increase the focus on an evidence-based approach.

One conservation submitter suggested the work programme under this shift could be integrated into broader innovation work programmes, so that it's run by people with experience and expertise in innovation, such as universities. One council said it was important to link this shift into the Conservation and Environment Science Roadmap 2016.

6.14.6 Innovation methods

There was a general sentiment that new ideas are needed, and DOC must find novel and fast ways to achieve this; technological change or time-consuming research aren't always required.

A few councils said innovation is needed to improve how DOC collaborates and changes behaviour. One council said the key is to not only build scientific knowledge and capability, but also to engage people in biodiversity. A few areas of interest suggested by submitters included establishing a social innovation and citizen science framework, prototyping, innovation challenges (including an open mind to backyard inventions), and encouraging a range of experts to collaborate such as ecologists, software developers and product engineers.

The Predator Free movement was cited by a few submitters as a good example of the power of collaboration and prototyping. One conservation submitter said improved predator control tools are emerging from the design and engineering community through prototyping, rather than the research community. Approaches and delivery speed are markedly different between the two.

Another submitter, a board, suggested there is an opportunity to better focus resources to conservation work already being done on the ground, rather than unnecessary research. New Zealand needs to get better at recycling the knowledge it has, using processes it knows works, and better integrating science and education.

A few submitters said it was important to recognise that there may already be useful innovations that DOC may not be aware of, particularly outside of New Zealand. There are opportunities to make better connections and to see what is already out there.

One science submitter suggested that innovation must extend to the individual level, as individuals have to be able to innovate, to test new ideas, to make mistakes and to recover from them.

6.14.7 Innovation focus areas

Many submitters said climate change innovation should be a priority under this shift. One submitter said innovation must first be informed by improved understanding of the wide range of biological, ecological, technological, organisational and social processes. One industry submitter said integrating primary industries should be a focus area, and a few submitters noted that more information on the benefits of primary industries is needed to inform discussions.

Views on priority areas otherwise varied across domains, species and control methods.

One science submitter wanted more attention and support given to equal allocation of resources across domains.

A few submitters observed that a better picture of all species is needed, including the full range of predators, pests and browsers. One conservation submitter said the Threatened Species Classification System should be used to identify innovation priorities, and that resolving data gaps is essential. Another submitter agreed that there is a need to improve our knowledge and understanding of species to see the impact they have on ecosystems.

Some plant conservation submitters said there is a need for more plant-focused innovation. One conservation submitter observed that New Zealand needs a seedbank for the conservation of indigenous plants. This should ideally be a purpose-built facility, with long-term funding. Cryogenic germplasm storage methods should also be used to ensure South Pacific flora, much of which is unorthodox and cannot be simply dried and frozen like traditional seed banking, is able to be banked. One plant conservation submitter also said ex situ conservation is an area of interest.

Some submitters, including councils, said some methods for protecting indigenous biodiversity such as 1080 are fairly blunt and crude. Funding should be directed at innovation for more effective breakthroughs, especially in weed and pest management. A few submitters, including boards, scientists and councils, mentioned genetic engineering and gene editing in this regard. One council said gene editing of invasive species warrants an informed discussion on the technology and its benefits and risks. There was no mention of this in the document, but it is important to have a conversation so we can talk about how far we are willing to go for a predator-free nation. Another submitter said perceptions around the use of genetic engineering may not have kept in touch with recent advances in science, and it's time to discuss this. A review of the science and how it relates to biodiversity could be included in the proposed first steps.

Some submitters saw a need to focus innovation on the marine environment. One board said more research on marine mammals is needed, to ensure there is adequate data to inform management and decision-making over threatened species such as Māui and Hector's Dolphins in the Golden Bay area. One industry submitter said marine pests are an area of interest.

One marine industry submitter expressed concern about the National Science Challenges initiative under this shift, indicating that Sustainable Seas represents a lost opportunity to date.

One science submitter said the Decadal Plan for Taxonomy and Biosystematics in Australia and New Zealand (2018–27) as an area of interest. Another said natural history and taxonomic collections are important to them.

One community and recreation submitter suggested that overseas models are reviewed, such as Guatemala's use of indigenous knowledge to help biodiversity, the Bhutan tourism levy, and Hawaii's marine reserve protection (a tourism-free day every week for the marine environment).

6.14.8 Data commons

There was support from many for the development of a national data commons. One council considered this would enable monitoring to be aligned and consistent across agencies, allowing us to tell local, regional and national stories about change. Some conservation submitters suggested data could be used to monitor goals, including the annual state of biodiversity, and biosecurity such as predator monitoring, pest plant removal, ecological restoration and bird counts. A few boards were also interested in links with mātauranga Māori research.

One submitter said the essential infrastructure underpinning innovation is chronically underfunded, with most funding typically directed towards new and exciting projects at the cost of baseline, foundational and long-term work such as ecological monitoring, taxonomy, and the maintenance of data repositories.

A few submitters, including some councils, said establishing baselines is essential under this shift, and should be brought forward as an immediate priority. One submitter suggested existing data should be used to create a comprehensive picture of New Zealand's biodiversity at a national scale, identifying gaps.

A few local government submitters noted that regional councils are already developing tools to get this underway, such as online taxonomic libraries and citizen science databases.

Some submitters commented about setting up the data commons. This should include developing robust standards, establishing independent monitoring, and making raw data and data analysis accessible to those that want to use it.

A few submitters noted challenges with creating a data commons; there are privacy challenges around data collected on private land, and data needs to be reliable enough to be used for decision-making in a legal context.

6.14.9 Capability and capacity

Some specific comments were made regarding innovation capability and capacity. One submitter considered that a review of scientific capability is more urgent than indicated in the priority actions.

A few science submitters noted that positions in areas such as ecology and taxonomy are constrained by the availability of research funding for universities and Crown research institutes.

A few plant conservation submitters said the ANZBS could also play a role in supporting universities and research institutions to develop and retain important biosystematics capacity, noting this capability can take decades to develop.

6.15 Global linkages

Some submitters commented on global linkages in sections of the discussion document, such as the outcomes and goals. Many of the submitters who responded directly to this section said it is vital that the ANZBS supports and strengthens global goals, targets and timeframes under the CBD, the Sustainable Development Goals, and the Paris Agreement. A few submitters felt these obligations could be made more transparent in the ANZBS, and one council suggested a table be added to this section to show alignment of the ANZBS with global targets.

A few submitters noted that New Zealand will not meet its current global targets for 2020, despite those being similar goals to the ones proposed in the discussion document.

Most marine industry submitters stated global targets were intended to provide a flexible framework for establishing national targets. These national targets would be created in line with national priorities and capacities, and applying these should be left to nations and their unique circumstances. In the case of MPAs, they noted that targets set perverse incentives and there is a need for a drastic rethink about how they are used in New Zealand.

A few submitters said that as a signatory to the CBD, New Zealand should also reflect the Global Strategy for Plant Conservation (GSPC) and its targets in the ANZBS. One submitter noted that New Zealand is expected to prepare and lodge a report in 2020 on progress towards these targets. They

stated there is still time to prepare something more informative about plant conservation achievements since 2000, and what New Zealand intends to do about the future challenges.

A few submitters said the broader global context and priorities for New Zealand could also be made more transparent in the ANZBS. One council said the ANZBS should acknowledge New Zealand's global position for many migratory species, and as a vulnerable and significant marine environment. A few conservation submitters said there appears to be very little consideration of New Zealand's role as a global citizen, our responsibility to reduce our environmental footprint (such as reducing emissions or promoting biodiversity friendly trade), or recognition of the potential role New Zealand could play in supporting other nations to improve their resilience to climate change impacts through nature-based solutions (such as providing international aid or sharing innovation and learnings, particularly in the Pacific).

One conservation submitter, an international NGO, is currently developing an ambitious, science-based 'New Deal for Nature and People by 2020' that sets three major global goals with targets and pathways. These are:

- Zero loss of natural habitats
- Halve the footprint of production and consumption
- Zero extinction of species.

While this submitter saw alignment between the draft ANZBS outcomes and the New Deal for Nature and People Goals, the outcomes and goals are not well aligned, and there is no clear pathway of action to achieve them.

One general public submitter said obligations to protect rare and unique introduced species should also be reflected in the ANZBS. For example, eradicating the Arapawa goat is very likely to cause their extinction as a wild species, and would be in breach of the Rio Global Plan of Action for Animal Genetic Resources.

6.15.1 Treaty of Waitangi

Most Treaty partner submitters support the intent of the proposals in principle, in that they provide for tangata whenua conservation rights and interests under the Treaty of Waitangi. Some Treaty partner submitters were of the view that the proposals can provide an opportunity for the Treaty partnership to be highlighted, and set the direction of the Crown and all-of-government response to biodiversity management.

Treaty partner submitters otherwise had strong views about the need for the ANZBS to include greater emphasis on all the principles under the Treaty of Waitangi, as well as the obligations of DOC, the Minister of Conservation and conservation boards under section 4 of the Conservation Act 1987. This should not be limited to the exercise of kaitiakitanga and mātauranga.

Treaty partner submitters generally said that co-management and co-governance needs to be better reflected throughout the ANZBS. Some other submitters expressed similar sentiments, noting specific areas where this could be better reflected such as capability and capacity priorities.

Some submitters noted that more detailed consideration must also be given to the Treaty of Waitangi, the Wai 262 claim and the various deeds of settlement that the Crown has entered into. One submitter, for example, said that while the ANZBS is presented in the discussion document as underpinned by the Treaty, there is little explanation of how this will apply to the ANZBS apart from a brief mention of settlements and a separate section on the Wai 262 claim.

One science submitter thought there was a general disconnect between the proposals and Treaty partner. They emphasised that the ANZBS should be led and written by Māori, as the threat of loss to biodiversity also means the immediate threat of loss to Māori culture. The focus should not be how mātauranga can be used in this strategy, but rather what the ANZBS can give back to mātauranga.

6.16 Key focus areas

Many submitters said there was too much focus in the proposals on land and animals, and not enough focus on climate change, the marine environment, fresh water, plants, native forests and urban areas. One local government submitter said the discussion document is a DOC-centric perspective focused on the current DOC work programme, rather than a true New Zealand Inc perspective.

A few submitters also noted the need for more granularity in the ANZBS on biodiversity areas that have lower profiles. One general public submitter, for example, welcomed the inclusion of fungi, bacteria and archaea, although noted the lack of wording on preventing biodiversity loss for these species. Most plant conservation submitters said there needs to be more focus on plants and the different types of plants, such as vascular and non-vascular plant taxa, noting that animals are often prioritised over plants.

6.16.1 Climate change

Many submitters across all groups said that climate change needs to be elevated, integrated and embedded in the ANZBS, rather than presented as a factor beside the main narrative. This recognises that climate change is the most significant threat to both indigenous biodiversity and humanity, and mitigation and adaption approaches to address climate change can also be used to protect and restore indigenous biodiversity. Some submitters suggested there are opportunities to create emissions trading scheme (ETS) incentives for native forests to support indigenous biodiversity outcomes.

6.16.2 Urban areas

Many submitters, particularly councils in high-growth areas, and a few conservation boards, said more focus should be given to urban priorities in the ANZBS, noting that around 87% of New Zealand's population, including 80% of Māori, live in these areas. While urban areas are a key driver of loss, they contain the greatest resources and levers to restore it. One board and a few councils said there are opportunities to embed, integrate and elevate the ANZBS in urban development plans, design practices and consent processes.

Marine environment and freshwater

Many submitters provided feedback on marine and freshwater issues, indicating a need for greater focus on these areas, and that a more integrated land and water approach should be considered, particularly in coastal areas where the pressures are the greatest.

6.16.3 Economic transformation

Many submitters expressed concern about the impacts of economic interests on indigenous biodiversity, particularly primary industries and tourism. One conservation submitter stated that the economic system drives environmental destruction, ecosystem degradation, species extinction and social disparity.

Some submitters said a fundamental economic transformation, prioritising indigenous biodiversity, is needed to address this. One council stated the ANZBS should be part of a wider package of work that readjusts economic incentives. This work should make clear that as a country we need to move away from high-intensity animal-based agriculture, towards low-impact farming with more diversity, fewer animals, and biologically optimised farming systems. Another submitter questioned society's appetite for resource consumption, and felt that there are limits to the capacity of our ecosystems.

Many submitters suggested cultural change is needed. One council suggested the need to change the idea that economic activity provides for indigenous biodiversity protection and restoration. Indigenous biodiversity largely enables economic activity through providing ecosystem services, and contributes to a greater wellbeing as well as cultural and recreational values. Another submitter said real transformation would come if businesses, companies and profit-driven decision-making were empowered to act in the interests of biodiversity.

Some submitters said the need for economic transformation needs to be made clearer in the ANZBS. For example, one conservation board said the ANZBS needs to be more honest and direct in stating that biodiversity loss is directly linked to our growth and consumption-based economic system.

A few submitters suggested economic limits are needed in the ANZBS. One submitter wanted limits set to build resilient ecosystems such as fisheries management buffers, to ensure fisheries are resilient to climate change.

Some industry submitters noted that the discussion document alludes to fundamental questions about how New Zealand prioritises biodiversity and economic benefits, and expressed concern that the ANZBS would set economic limits. A few of these submitters said a national conversation is needed about the value of non-indigenous biodiversity and the role of industry.

A few other submitters suggested a need for more informed discussion on priorities and trade-offs. One conservation submitter said that while exotic species underpin large parts of our economy and are valued for recreational hunting, the ANZBS must not shy away from the real and ongoing damage caused to our indigenous ecosystems by browsing mammals. This harm must be properly measured and reported so we can have an accurate national conversation about the level of harm we are willing to accept. However, one community and recreation submitter said priority should be considered on a case-by-case basis, rather than just assuming that indigenous biodiversity is more important than introduced species.

6.16.4 Readability

While some submitters said the discussion document was comprehensive and easy to read, many others considered that it was missing detail or was too wordy and needs to be simplified.

Some submitters suggested adding more diagrams and/or improving existing diagrams. A few submitters noted that the ANZBS will need to reflect its different audiences. There may need to be different versions.

One submitter said the ANZBS needs to be written so that any kaitiaki or iwi leader can pick it up and see themselves in the solution. They suggested it could be a case of writing specialised biodiversity strategies for each iwi. One science submitter proposed a separate version of the ANZBS should be produced entirely in te reo Māori to encourage people to learn the language.

Many submitters expressed support for the use of te reo Māori in the proposals, but some noticed instances where it was used exclusively, such as in the values section. They said an English translation should also be provided.

6.17 Management pressures

The general sentiment among many submitters is that the management system for biodiversity is not fit for purpose. Submitters reflected on many issues, including the general lack of political will, data gaps, system fragmentation, perverse incentives, the decision-making bias that does not

account for the value of nature, the lack of global leadership on trade-related matters, and lack of innovation.

6.17.1 Changing political trajectories

A few submitters said the lack of political will or ability of the system to drive real change across political cycles is a significant constraint. One general public submitter said that one issue is the collective loss of memory of political administrations, the consequences of which can be costly. Research has to be redone, projects and programmes reargued, lobbying groups and contact networks realigned, values reformulated and reiterated, with serious loss of traction. Another submitter stated that acknowledging the previous failures of kaitiakitanga/stewardship is important in this section.

6.17.2 Data gaps

Many submitters alluded to data and information gaps that impact on the ability to establish robust baselines, set priorities and monitor progress. One submitter said essential infrastructure underpinning innovation is chronically underfunded, with most funding typically directed towards new and exciting projects at the cost of baseline and foundational priorities. Another submitter said there is a lack of data on threatened species, while a further submitter was concerned there are no requirements to report to any formal body on threatened plants grown in botanic member gardens. One council said there is insufficient marine data (noting marine mapping is particularly expensive).

6.17.3 System fragmentation

Many submitters generally agree with the statement that the system is ‘inconsistent, disjointed, under-resourced and poorly enforced, resulting in the failure to achieve many biodiversity outcomes. There is no clear and universal mandate to protect species or ecosystems across all environments, and there are inconsistencies in how species are managed under different Acts.’

A few submitters note the need to review, modernise and align legislation. One science submitter identified a need to address consistency between acts, as well as a need to update acts. Some submitters mentioned examples of legislation they consider needs review and/or updating under the ANZBS. For example:

- The RMA needs to be changed so cumulative effects of activities in the coastal and marine area are considered, and no proposal is approved unless evidence shows that adverse effects on biodiversity can be avoided.
- The Wildlife Act 1953 should be improved to increase rates and diversity of species being located within or on shared boundaries with plantation estates.
- The Native Plants Protection Act 1934 should be broadened to protect plants beyond conservation land (such as preventing garden centres from selling plant species that are considered or easily become weeds such as heaths).
- The requirements and enforcement for pest plant and animal eradication needs review, especially where monitored land is reinfested, and there is an absentee landlord.
- Marine legislation needs to be reviewed to prevent environmental harm from marine activities. MPA legislation is needed, and a statutory marine spatial planning framework established.

Some submitters noted that there is an increasing need to collaborate and to find better ways to collaborate through an integrated management approach. One submitter said there is a lack of integration between the land and the sea. Another said there are challenges with joining up marine stakeholders. In light of the recent Motiti Rohe Moana decision, there may be a more significant role for regional councils to manage the coastal marine area to protect biodiversity. This adds to an

already complex monitoring and regulatory space, which is hindering effective protection of the coastal-marine environment.

6.17.4 Perverse incentives

Many submitters, particularly councils, noted that most indigenous biodiversity loss is happening on private land. Many of these submitters said there are perverse incentives in place that prevent landowners from protecting indigenous biodiversity, and few adequate incentives to change their behaviour. This is a big issue for these submitters, because a lot of indigenous biodiversity can never be restored after it is lost. One council found that once indigenous vegetation has been removed and the land cultivated for forestry, farming or urban development, there is little likelihood that native vegetation will ever return to its original state.

Some submitters were concerned about the clearing and general reduction of native indigenous forests in New Zealand and overseas. They noted a number of what they viewed as perverse incentives in this regard. One submitter stated the estimated cost for establishing native forest on bare land in New Zealand typically ranges from between \$5,000/ha–\$40,000/ha, whereas radiata-pine (non-indigenous forest) costs approximately \$1800–\$2000/ha to establish. Native forests take longer to grow than non-indigenous species like radiata pine. The ETS does not set adequate incentives to address this.

Most marine industry submitters are concerned about the way global MPA targets are being applied in New Zealand. One marine industry submitter stated the global targets were intended to provide a flexible framework for establishing national targets in line with national priorities and capacities. Applying these targets should be left to nations and their unique circumstances. In the case of MPAs, these targets set perverse incentives and redirect scarce resources from more relevant priorities.

6.17.5 Lack of value on nature and bias towards economic development and growth

Many submitters generally agree nature is not valued in decision-making systems, and that systems tend to favour economic development and growth. One conservation submitter noted that rare plants, or even common ones, are not legally protected under the Native Plants Protection Act 1934 unless they grow on land protected for conservation purposes. In reality, many threatened plants occur on land that is not legally protected. Under the RMA, plant protection decisions come down to decisions weighing up the significance of conservation with economic priorities, existing use rights, and the perception that landowners should be free to do as they wish on land they own. There is no clear direction to courts or councils on the importance of threatened plants to biodiversity conservation without legal protection. This does not send the right signals about the importance of plants, nor is it an effective way to protect populations that are often compromised in this process.

Another conservation submitter expressed concern that the Environmental Protection Authority's (EPA)'s decision-making bodies do not fully assess the cumulative effects of proposed petroleum activities on marine ecosystems and threatened species, as required under the EEZ-CS Act. All too often applications are processed separately, and their effects assessed in isolation. A full assessment of these effects and the potential implications on ecosystems and threatened species is critical to ensuring they are not irreversibly harmed.

6.17.6 International trade leadership

A few submitters expressed concern about New Zealand's global leadership on indigenous biodiversity matters such as promoting biodiversity friendly trade. One conservation submitter was concerned timber pillaged from native forests in other countries is allowed to be imported into New Zealand.

6.17.7 Lack of innovation

A few submitters said there is insufficient innovation occurring, and too much focus on time-consuming and resource-intensive research at the expense of different approaches. A few submitters noted there is also insufficient research on improving collaboration and processes.

6.18 Next steps

Submitters generally noted the process for developing the updated ANZBS was iterative, and many said they would like to be further engaged on this work. Many local government submitters said they thought it was essential that they work more collaboratively with DOC, given their role in implementing the ANZBS through regional plans. A few submitters wanted technical working groups to be set up to inform discussions. One marine industry submitter called for a working group to be developed to deal with marine issues. Some submitters said they would also like to be engaged in global events, noting that global changes are imminent in 2020.

7 Treaty partner

The Treaty partner section is divided into two parts. The first covers the themes discussed at Treaty partner hui. The second part discusses the written submissions received from Treaty partner.

7.1 Treaty partner hui

Effectively engaging with Treaty partners and empowering kaitiakitanga is important for the Department of Conservation (DOC); it is also important under DOC's obligations under section 4 of the Conservation Act 1987, to give effect to the principles of the Treaty of Waitangi. The principles are:

- The principle of government
- The principle of self-management
- The principle of equality
- The principle of reasonable cooperation
- The principle of redress.

It's important to clarify the context of the key themes identified through engagement with Treaty partners; not all of the themes outlined below were discussed at all hui. Hui participants shared their perspectives and values as Māori; they were not speaking on behalf of others. The key themes set out below were not discussed at all hui. There are diverse perspectives and values on biodiversity management both within and across iwi/hapū/whānau, and the themes representative of individual attendees rather than attributable to any particular iwi/hapū/whānau.

7.2 Interconnectedness of biodiversity

DOC heard from many iwi/hapū/whānau who believe biodiversity must be considered alongside people, as part of a whole environmental system. This relates to whakapapa; all of life is interconnected, and biodiversity can't be seen in isolation. Restoring and enhancing biodiversity is intrinsically linked to restoring culture, and people's wellbeing and connection to nature.

7.3 Connections to and reflections of the Treaty of Waitangi

Many Treaty partners seek to manage, co-manage or co-govern the whenua in their rohe, to take the lead on what is important to iwi/hapū/whānau. This encompasses cultural and ecological capability through education and opportunities for employment. Some iwi/hapū/whānau are already developing training programmes in their rohe to build the capability and capacity of Māori to manage biodiversity. In many cases, there is a desire for more training and capability building opportunities.

Funding and knowledge resources for building local capability are seen as essential. Treaty partners want government to support knowledge sharing opportunities with them by investing in systems and relationships for working together with Treaty partners. This would help to realise the diverse opportunities for knowledge sharing through national and local government partnerships with iwi/hapū/whānau. Most Treaty partners considered that important cultural outcomes could be achieved by working in partnership with DOC.

Iwi environmental management plans were discussed, and many believed these plans need to be better recognised and engaged with by local and central government. The plans outline Treaty partner aspirations and priorities for protecting, managing and sustainably using natural resources and biodiversity in their regions. Some iwi/hapū were interested in extra resourcing and advice to help develop environmental plans.

7.4 Biodiversity and wellbeing

There was discussion at some hui about the challenges people faced in looking after nature, and how they could be supported. For some whānau on low incomes, using resources to support the environment can be a lower priority in their hierarchy of needs, and health, housing, food, and accommodation are prioritised above environmental concerns. The four wellbeing capitals in the Treasury's wellbeing approach (including the environment) are relevant to Māori worldviews.

Some hui attendees were of the view that the previous strategy followed too much of a western science paradigm, and separated people from biodiversity. They suggested linking biodiversity and the health of people in the ANZBS.

A key theme raised by hui participants was the loss they feel when disconnected from the environment. Treaty partner discussed how the decline in biodiversity has led to a decline in the ability of some iwi/hapū/whānau to carry out customary practices. Mahinga kai allows knowledge to be transferred from generation to generation, and some Māori feel a sense of separation if they can't practice mahinga kai; this breaks their kinship with the natural environment. Legislation was often mentioned as a barrier to traditional practices; for example, The National Parks Act 1980 and the Wildlife Act 1953 are seen as administrative barriers to practising mahinga kai.

The concept of 'kinship' was repeated throughout the hui. Participants were of the view that we need to maintain a kinship with the environment because its loss affects us all, and this is key to the problem of biodiversity decline.

There is a desire from Treaty partner to see real outcomes; not simply the avoiding or remedying of effects, but also the use, protection and restoration of biodiversity.

7.5 Importance and relevance of mātauranga Māori

Treaty partner discussed mātauranga Māori as knowledge and wisdom; it has a cultural and local context, so there are protocols for using and sharing it.

Many Treaty partners felt mātauranga Māori needs to be embedded right across the ANZBS, including mātauranga built at a local level. As mātauranga is alive at a local level, it is most valuable in practice rather than at a national strategic level.

Some hui attendees see rongoā as a key opportunity, with possibilities in the commercial sale of rongoā-based products. Being able to access species for rongoā practice was an issue in some cases.

7.6 Māori landowner perspectives

Some hui participants discussed what would be required to make it economically viable for Māori landowners to maintain or restore biodiversity on their land. Compared with the economic return of converting land to exotic forestry, it is not currently economically viable to maintain biodiversity.

The potential for ecotourism grounded in te ao Māori was also discussed, including the unique cultural context of each area, and how this could be of benefit to increasing regional tourism.

7.7 Monitoring and evaluation of biodiversity

Treaty partner discussed the importance of monitoring biodiversity and project impacts beyond western scientific concepts; a mauri monitoring framework would be helpful for this, but DOC would need to develop their capability to implement. Environmental data gaps were discussed, particularly in the marine environment.

Treaty partners are using action and planning tools to adapt to climate change; they discussed these, and that biodiversity management needs to shift to take account of climate change.

7.8 Better alignment of biodiversity management

Some hui participants called for government programmes and planning on biodiversity to be better aligned; many Treaty partners referred to the complex plans/strategies to navigate across national and local government. There was interest at some hui on how iwi management plans⁵ can be enabled and supported by national/local government plans.

Treaty partner said that there needs to be support for some iwi/hapū/whānau to develop environmental management plans, to assess their priorities and actions, and communicate these more widely and through council processes. Iwi biodiversity management plans hold important kaupapa, tikanga and mahi on biodiversity challenges, opportunities and outcomes.

7.9 Cultural capability

The importance of cultural capability to understand Māori lore was discussed, and the need to reflect this in national and local policy. Many hui participants considered that the Crown is trying to fit Māori lore into Crown legislation. Treaty partner consider that Māori lore and legislation do not align.

Treaty partner considered that the ANZBS should include a comprehensive understanding of kaitiaki and mauri frameworks; there is a depth of understanding to kaitiakitanga that the Crown needs to understand and respect, and this should be reflected in the ANZBS. This is summarised by DOC as:

- Kaitiaki are more than carers. Kaitiaki are the people who understand what kaitiakitanga means—they have a depth of knowledge.
- Iwi/hapū/whānau have their own process in terms of kaitiakitanga. They have the authority in their rohe to define the role of kaitiaki.
- If rahui are placed on an area, this requires respect and protocol to be advised by Treaty partners. This will enable the land and water to restore the mauri.
- Giving biodiversity a legal status was suggested as a way that legislation and Māori lore are both considered.

Treaty partner discussed funding in terms of developing a vehicle to drive iwi and Crown co-development. DOC considers that this could take the form of a regional iwi environmental forum.

As more Treaty settlements are reached, the ANZBS and DOC's work programme more broadly need to take account of the shift underway in Māoridom. Many iwi and hapū aspire to lead the ongoing work on biodiversity.

The ANZBS should look at how people, culture and the environment will work in harmony and balance to support wellbeing. There was considerable interest in how Wai 262 aligns with the ANZBS, and how this will be captured.

⁵ An iwi management plan (IMP) is a resource management plan prepared by an iwi, iwi authority, rūnanga or hapū. IMPs are generally prepared as an expression of rangatiratanga to help iwi and hapū exercise their kaitiaki roles and responsibilities. The RMA, sections 66(2A)(a) and 74(2A) place certain requirements on regional and territorial authorities preparing or changing plans to take IMPs into account.

It is a requirement for some iwi to be able to identify a list of culturally important taonga species as a complement to DOC's prioritisation of biodiversity management.

7.10 Cultural changes since the 2000 New Zealand Biodiversity Strategy

Hui participants discussed how biodiversity as a concept has changed over time. In 2000, biodiversity was poorly understood, and belonged to the scientific community. In recent years this has changed, with the term now more connected to whakapapa/whanaungatanga in a te ao Māori perspective. The nature–people connection of biodiversity is more widely understood, and it's seen less as a sanctuary/preservation view and more that biodiversity exists in the landscape of people. Questions were raised consistently on whether biodiversity is too limiting a term for this relationship.

Some Treaty partners commented that there has been a shift in the past 20 years, from most conservation work being seen to be done by Pākehā, to increasing levels of iwi-driven conservation work. Concerns were raised about restoration being led by Pākehā, with some iwi/hapū/whanau unable to lead due to resourcing constraints, or being prevented from making leadership decisions.

7.11 Treaty partner submissions on Te Koiora o Te Koiora

There were five submissions from Treaty partners. This section also includes themes that were discussed at Treaty partner hui in phase one and two of public engagement.

- Te Ātiawa Manawhenua Ki Te Tau Ihu Trust
- Te Ohu Kaimoana
- Te Rūnanga o Ngāi Tahu
- Te Runanga o Ngati Ruanui Trust
- Te Rūnanga o Toa Rangatira.

Most Treaty partners supported the content or proposals of the discussion document in principle, as it provides for Treaty partner rights and interests in conservation. Some Treaty partners were of the view that the Treaty partnership should be highlighted in the ANZBS, as well as setting the direction of the Crown, and government biodiversity management policy. Others stated that co-management and co-governance need to be better reflected throughout the ANZBS.

There was strong direction from Treaty partner that the ANZBS needs to include greater emphasis on the full range of the principles of the Treaty of Waitangi and the obligations of the Department, the Minister of Conservation, the New Zealand Conservation Authority and the regional conservation boards under section 4 of the Conservation Act 1987.

The Treaty of Waitangi is the foundation for DOC to give effect to the following Treaty principles:

- Rangatiratanga
- Meaningful partnerships with Treaty partner as mana whenua
- Active participation in decision-making
- Active protection of the rights and interests of Treaty partner
- Kaitiakitanga.

Most Treaty partner emphasised that the Treaty principles must be reflected throughout the ANZBS, and not limited to the exercise of kaitiakitanga and mātauranga. They also considered that the ANZBS needs to support iwi/hapū to fully partner with the Crown in the biodiversity system.

Most Treaty partner stated that the discussion document as supporting how conservation has been viewed and practiced in the recent past, and the conservation outcomes and priorities that DOC sought. They stated that the ANZBS needs to reflect the priorities of the Treaty partnership, and a new way of approaching conservation, which includes the role of mana whenua as kaitiaki.

Some Treaty partner supported the approach for their participation in decision-making, and the inclusion of te ao Māori alongside western science.

Many Treaty partner submitters noted that there needs to be more detailed consideration of the Treaty of Waitangi, the Wai 262 claim, and the various deeds of settlement the Crown has entered into. One submitter stated that while the ANZBS is presented as underpinned by the Treaty, there is little explanation of how this will apply, other than a brief mention of settlements and a section on the Wai 262 claim.

7.11.1 Ngāi Tai ki Tāmaki Tribal Trust v Department of Conservation

Some Treaty partner were of the view that there is no reflection of the Treaty partnership in DOC's policy programme and how the ANZBS has been developed following the Supreme Court decision (*Ngāi Tai ki Tāmaki Tribal Trust v Department of Conservation*).

Some stated in written submissions that the discussion document did not adequately outline the role of mana whenua as Treaty partner (or with a range of values and interests relevant to biodiversity) in the 'Vision', 'Values and Principles', 'Goals' and the 'Five system shifts'.

They were of the view that the mahinga kai vision and the goals proposed for 2030 and 2050 did not refer to mana whenua as a partner, or having a role in decision-making and governance. Treaty partner submissions supported the goal for 2025 that 'tangata whenua [are] meaningfully engaged by government in decision-making about the whenua, awa and moana with which they associate'. They considered this should be applied to all taonga, including flora and fauna, and needs to reflect the partnership more broadly than just engaging in decision-making.

A summary of the Treaty partner recommendations for the ANZBS follows:

- The ANZBS needs to recognise the status of Treaty partner and their holding of rangatiratanga over their takiwā.
- The ANZBS needs to recognise the importance to Treaty partner of Te Ao Tūroa⁶ and the taonga species in it.
- The ANZBS must give effect to the principles of the Treaty of Waitangi:
 - Rangatiratanga—to uphold the rangatiratanga of Treaty partner over resources and taonga species.
 - Partnership—to fully partner with Treaty partners in developing policy, developing and implementing conservation activities, establishing incentive and protective mechanisms, and building the capacity and capability of Treaty partners and others to co-manage biodiversity.
 - Active protection—to support Treaty partner interests and aspirations in the conservation estate, including the right to economic development, practice kaitiakitanga and mahinga kai, as well as working in partnership with the Crown.

⁶ Ministry of Primary Industries has developed Te Ao Tūroa to raise the profile of the primary industries in schools and help address future capabilities and skills needs. It looks at how our primary industries are supported by three key interrelated systems—animal welfare, biosecurity and food.

- The ANZBS must be developed and implemented in full Treaty partnership.
- A fundamental shift is needed to adopt the principles of the Treaty in policy, decision-making and implementation.
- The ANZBS must have an integrated approach to the Treaty principles. Language must shift to enabling partnership in all decision-making and implementation, and actively protecting Treaty partners' rights and interests in all five system shifts.
- The strategy must support Treaty partners to determine and articulate their aspirations and priorities for the biodiversity system in their takiwā, as well as provide opportunities to contribute to DOC's goals.
- Active protection of remaining taonga species, particularly those of local significance that are not considered extremely high risk in the national scale.
- Enhancement and restoration of taonga species.
- Equitable use of taonga species.
- The 'Vision' and 'Goals' of the ANZBS must reflect the principles of the Treaty.
- Establishing co-management and co-governance of conservation areas of high value to Treaty partners should be a priority action.
- Any protection mechanism, such as Marine Protected Areas (MPAs) or marine reserves, must not impede the rights and interests of Treaty partners.
- Developing and implementing any protection mechanism must be done in partnership with Treaty partners.
- Customary practices and protection mechanisms need to be favoured over other protection mechanisms.
- Treaty partners expect DOC to consider and analyse the short-, medium- and long-term implications of climate change to biodiversity.
- Analysis of and information from the previous strategy is required, and should be used to inform the new strategy. DOC should review what worked and did not work under the previous strategy, and use this to guide the outcomes, priority actions, and the implementation plan of the new ANZBS.
- DOC needs to ensure the information used to inform the strategy and implementation plan are accessible. DOC has a duty of good faith to its Treaty partners to support the role of Treaty partners in decision-making. For this to occur, the appropriate information must be provided.
- The ANZBS must be founded on comprehensive and accurate data and evidence, including mātauranga.
- It needs to provide clear objectives and actions so that it can be monitored to ensure objectives are being met or progressed.
- The ANZBS should include a clear process of review, and flexibility to adapt to a changing environment, shifts in technology, and new research/data.
- The strategy needs to impose obligations and actions to meet intended outcomes. Clarity is also required on the status of the ANZBS and what effect it has on other Crown departments, regional and local authorities, other policy and individuals.
- The Crown's Treaty of Waitangi obligations must be monitored and assessed with Treaty partner.
- DOC needs to establish a funding model, and have certainty of the parameters of funding to ensure any actions and outcomes set are achievable. The strategy and implementation plan must be appropriately resourced to deliver the intended programmes and initiatives.

- The ANZBS needs to provide for proactive engagement with Treaty partners, including in co-management and co-governance, monitoring and research, and implementation. Treaty partners must develop the implementation plan with DOC.
- International agreements, including the revised Aichi Targets in 2020, must not impede or abrogate the rights and interests of mana whenua (including Treaty settlements and Treaty of Waitangi obligations).
- The Crown needs to support and provide opportunities for Treaty partners to be part of discussions on, and agreement to, international obligations.
- The ANZBS must not prioritise New Zealand’s international commitments over the Crown’s obligations under the Treaty of Waitangi and Treaty settlements.
- System shift 2 must give effect to the principles of the Treaty and uphold rangatiratanga, and must not be limited to the practice of kaitiakitanga and use of mātauranga Māori. The partnership between the Crown and iwi/hapū is required.
- The ANZBS outcomes must support current programmes and initiatives by Treaty partners. DOC must also support new opportunities for Treaty partner to exercise kaitiakitanga.
- Priority action 1—Agencies must not only ‘improve’ the management of iwi rights and interests, they must give effect to those rights and interests as required by section 4 of the Conservation Act 1987 and the Treaty.
- Priority action 2—The ANZBS must ensure that mana whenua hold key roles in the system governance structure (as above, this must not be restricted to limited roles that do not meet the level of partnership), as well as the implementation of the ANZBS and its outcomes.
- Priority action 3—Support must be provided for training programmes led by mana whenua and current biodiversity programmes implemented by mana whenua.
- Priority action 4—Legislation and policy should be reviewed to ensure it ‘gives effect to’ the principles of the Treaty, not simply recognise and provide for kaitiakitanga and mātauranga Māori.
- Priority action 5—The ANZBS must support Māori and iwi/hapū to engage with international conversations and agreements.
- The ANZBS must outline how DOC and the Crown, in partnership with iwi/hapū, will address the analysis and recommendations made in Ko Aotearoa Tēnei⁷.
- The analysis and recommendations made in Ko Aotearoa Tēnei must be echoed throughout the ANZBS, including the overarching principles of partnership and rangatiratanga.
- The analysis and recommendations made in Ko Aotearoa Tēnei must not be read down to limiting the role of mana whenua as kaitiaki and empowering mātauranga.
- The ANZBS must provide for Target 19 of the current Aichi Targets, by respecting the knowledge, practices of, and customary use of biological resources by mana whenua, and integrate the effective participation of mana whenua at all relevant levels in the implementation of the strategy.
- Further research be undertaken on:
 - Patch size/fragmentation of ecosystems
 - Proportion of environmental unit under indigenous cover
 - Impacts on ecological integrity of permitted activity
 - Pesticide use.

⁷ Waitangi Tribunal. 2011. Ko Aotearoa Tēnei: a report into claims concerning New Zealand law and policy affecting Māori culture and Identity (Waitangi Tribunal report Wai 262). Legislation Direct, Wellington.

8 Online survey response and public workshops

There was high engagement at public workshops and on the survey across New Zealand, both in the main centres and regionally, as shown in the table below. The survey was hosted on SurveyMonkey for eight weeks.

For a detailed summary of survey responses and public workshops, see Appendix 2—Online survey responses, public workshops and focus groups.

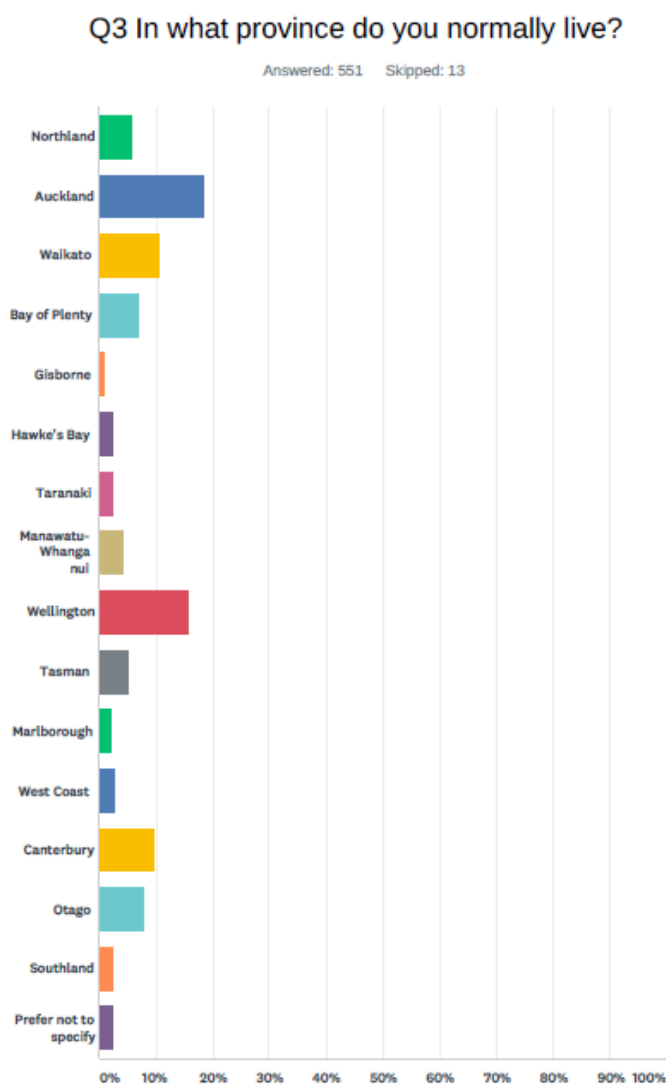


Figure 1: Location of survey respondents. Source: Discussion document survey, SurveyMonkey

9 Scoop Biodiversity HiveMind

9.1 Biodiversity HiveMind context

The public could engage with the Aotearoa New Zealand Biodiversity Strategy (ANZBS) discussion document online using Scoop's public engagement platform, HiveMind. The Biodiversity HiveMind ran for seven weeks, from Monday 5 August to Sunday 22 September 2019. This interactive survey platform enables participants to consider statements about an issue, add their own statements for others to vote on, and to see how their opinions fit with other people's views.

HiveMind is designed to enable citizens to safely exchange and consider ideas and proposals about a public issue with other citizens, authorities, experts, organisations and with Scoop's journalists and editors. It is designed to highlight both areas of difference and of common ground.

This section and parts of the survey response section are based on the Biodiversity HiveMind Report: Protecting and Restoring New Zealand's Biodiversity, prepared by Scoop Media and Public Engagement Projects.⁸

9.2 How HiveMind works

HiveMind is run by [Pol.is](#), an interactive survey technology that allows participants to consider statements about an issue, add their own statements for others to vote on, and see how their opinions fit with other people's views. Pol.is analyses voting patterns, and groups participants based on two criteria:

- Participants who tended to vote similarly on multiple statements are grouped together as an opinion group
- Each group of participants who voted similarly will have also voted distinctly differently from people in other groups. The resulting groups are presented to participants as they participate. The visualisation highlights both areas of agreement and difference. Participants are encouraged to return to Pol.is regularly over several weeks to review emerging patterns, vote on new statements and add their own ideas, perspectives and proposals for all other participants to consider.

9.2.1 Seed statements

'Seed' statements were prepared by the Biodiversity HiveMind project team to give early participants statements to vote on. These 50 statements were taken from the discussion document, and from four archetypal perspectives set out on the Biodiversity Hivemind participation page.

9.3 Participation

Overall, 443 people voted on a sufficient number of statements for their voting patterns to be analysed.

Two opinion groups emerged. Group A was made up of 72 people, and Group B had 371 people. Both groups include significant numbers of people who were younger (under 30), middle-aged (30–54) and older (over 55). Both groups included people who live in cities, towns and rural areas. However, people in Group A tended to be older and from rural areas, while people in Group B

⁸ Download the HiveMind [Report: Protecting and restoring New Zealand's Biodiversity](#) for more information.

tended to be middle-aged and from urban areas. Compared with census data, participants from older cohorts and rural populations were overrepresented in the HiveMind.

9.4 Overall findings

Despite a diverse range of participants and perspectives in this group, there are significant areas of common ground on the future actions and elements that the ANZBS should include.

There was broad support for the following key areas, which is defined as at least 70% of the people in Group A and at least 70% of the people in Group B agreeing. In many cases, the levels of agreement were significantly above 70%. The themes listed below had broad support across most HiveMind participants.

- Theme: Biodiversity and the interrelationships with public health and the economy
Participant statement: “Our physical and mental health and prosperity depends on our natural environment.”
- Theme: Protecting entire ecosystems
Participant statement: “Instead of focusing on protecting flagship species, we should focus on protecting entire ecosystems, which may include those species.”
- Theme: Urban biodiversity
Participant statement: “Biodiversity is not just a rural issue, there are many biodiversity problems in towns and cities”, and “We should innovate to become more inclusive of nature and biodiversity in our city/town designs.”
- Theme: Environmental education
Participant statement: “Education standards should require educational field trips to natural spaces for all school children.”
- Theme: Marine biodiversity
Participant statement: “More no-take marine reserves should be created, especially in the habitat of endangered animals, like Māui dolphins and endangered seabirds.”
- Theme: Sustainable economic development
Participant statement: “Establish a partnership between the agriculture industry and government to develop and promote farming practices that protect and restore our biodiversity.”
- Theme: Environmental taxes and regulations
Participant statement: “Ownership of water rights should not allow degradation of the resource. Stronger management, quality and quantity standards are needed.”
- Theme: Principles for the New Zealand Biodiversity Strategy
Participant quote: “The Biodiversity Strategy should take an intergenerational view”, and “Introduced species are not inherently good or bad. Their place in our biodiversity depends on the impact of the specific species.”

9.5 Differences between opinion groups

The main differences of opinion between people in Groups A and B are:

- Disagreement about the nature of biodiversity, and the desirability and feasibility of protecting and/or restoring indigenous biodiversity.
- Different views about whether biodiversity is in crisis and whether more resources are needed to adequately manage it.
- Disagreement about the management of browsing game animals such as deer, which are valued for hunting and as a source of food.
- Differing levels of trust in government.
- Disagreement about the rights of property owners.

A detailed summary of the Biodiversity HiveMind engagement is included for each of the survey responses in appendix 2.

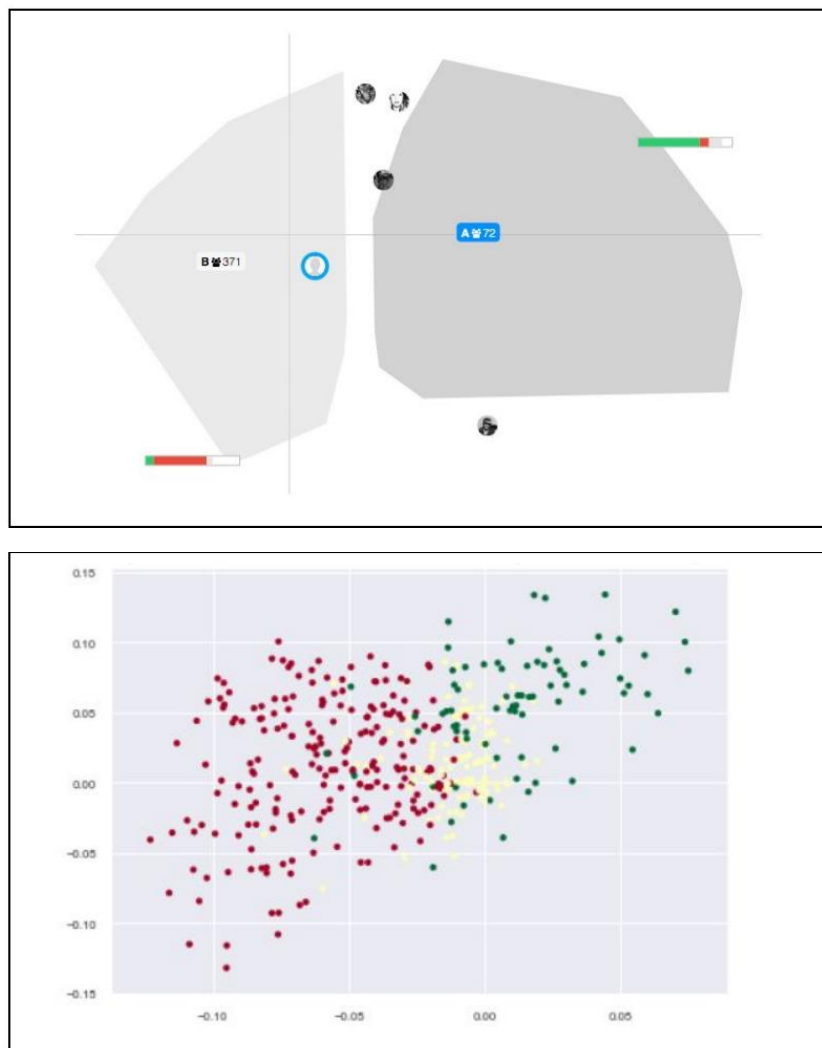


Figure 2: These two figures represent HiveMind participants' response to a given statement. They provide participants with information on which opinion group they most align with. Both figures show the same data, presented in two different ways. The bottom plot shows the relative proportions of people in each group that agreed (green), disagreed (red), or did not answer (white) the statement.

10 The Hive—youth engagement summary

10.1 The Hive participation

The Hive was visited by 285 young people, who made submissions on the Aotearoa New Zealand Biodiversity Strategy (ANZBS) through a unique submission process co-designed with young people. Users could choose to create a video, input a written submission, or write responses to four biodiversity-related questions.

Responses to the four questions were received from 251 youths; 27 wrote a paragraph, and three submitted a video.

Over half of respondents were 15–17 years old. Twenty-five percent were aged between 12 and 14, and almost 10% were aged under 12. A large proportion of youths submitting identified as Pākehā, and 13% identified as Māori. There was balanced youth engagement from across the country. For 84% of participants, it was their first time submitting on government policy.

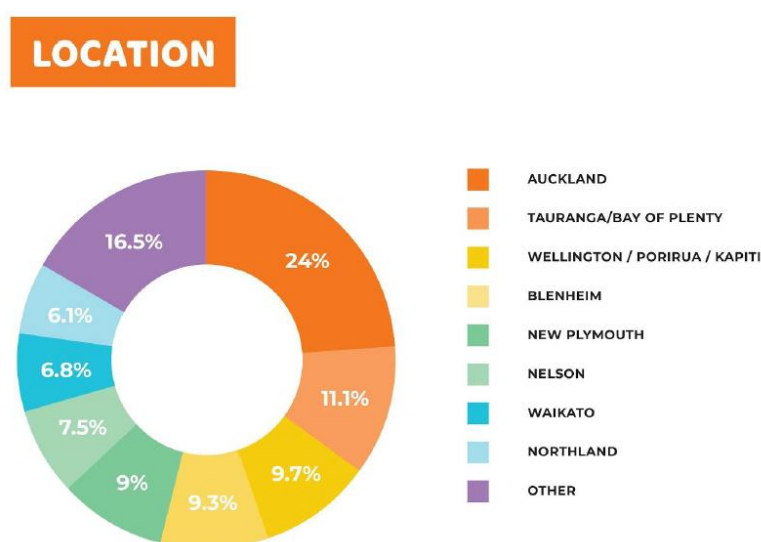


Figure 3: Location of youth submissions on the ANZBS. Source: www.the-hive.nz

The following summary is included with permission from the Ministry of Youth Development, and Curative, the design agency that facilitated and coordinated with youth. For further information please visit the Hive website, www.the-hive.nz

- Young people’s vision for Aotearoa is focused on being clean and green, with less pollution, more flora and fauna, greener cities, and New Zealanders changing their attitudes to help this vision to become a reality.
- 49% of question respondents described New Zealand’s environment as either ‘bad’ or ‘very bad’, with only 37% describing the environment as being in a good state. Of the other respondents, 14% were undecided or described both positive and negative aspects.
- 66% considered their local environment had undergone negative change over time. However, 23% said their local environment had experienced positive change, and 8% had seen very positive changes.
- Many of the youth submissions indicated that they consider New Zealanders’ attitudes towards the environment and sustainability to be improving, e.g. people reported seeing fewer plastic bags in circulation, and more people taking advantage of reusable solutions.

- Suggestions for how New Zealand might improve its levels of biodiversity included education programmes, each individual taking more responsibility for their environmental impact, promoting strategies and policies that encourage biodiversity to flourish, innovation and technology, and businesses stepping up to play their part.

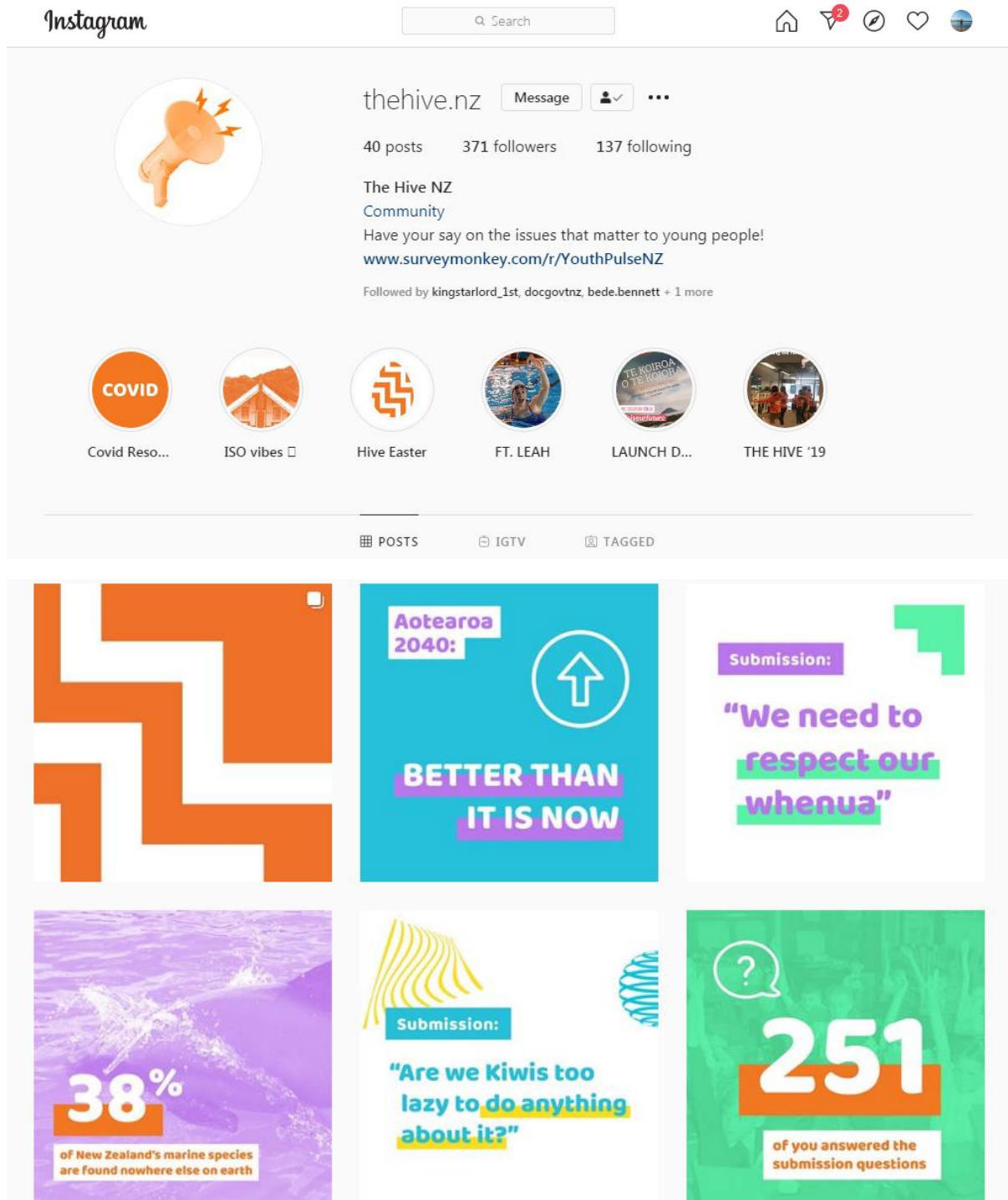


Figure 4: The Hive Instagram channel was used as a main engagement channel for young people. Source:thehivenz_instagram channel



What's going on?

- New Zealand's biodiversity needs protecting, and your voice can help make sure that happens.
- Our indigenous plants, animals and ecosystems are under threat.
- We have 4,000 species at risk of extinction and natural ecosystems in decline.

Things aren't looking good, but by having your say, you can help turn things around.



The problem:

Our birds and plant life are endangered.

MORE ABOUT THE PROBLEM

- Our indigenous biodiversity is in serious trouble. We have 4,000 species at risk of extinction
- Even though we've been making progress, our natural ecosystems are in decline.
- Our current New Zealand Biodiversity Strategy is nearly 20 years old and expires next year. It's time for a new one!
- Now, we need your help to create a strategy that addresses current issues, like climate change.

#thisisourwhenua

Figure 5: The Hive website was designed to help young people learn about biodiversity and submit on the ANZBS discussion document. Source: www.thehive.nz

11 Next steps

The Department for Conservation will use the submissions received during consultation as part of a range of evidence to inform the development of the Aotearoa New Zealand Biodiversity Strategy (ANZBS).

The draft ANZBS will be considered for endorsement by Cabinet.

Appendix 1—Written submissions

11.1 Treaty partners

- Te Ātiawa Manawhenua Ki Te Tau Ihu Trust
- Te Rūnanga o Ngāi Tahu
- Te Ohu Kaimoana
- Te Runanga o Ngati Ruanui Trust
- Te Rūnanga o Toa Rangatira

11.2 Statutory boards

- Auckland Conservation Board
- Canterbury Aoraki Conservation Board
- Nelson Marlborough Conservation Board
- New Zealand Conservation Authority
- Otago Conservation Board
- Queen Elizabeth II National Trust
- Taranaki/Whanganui Board
- Waikato Conservation Board
- West Coast Tai Poutini Conservation Board

11.3 Environmental NGO interest group

- Climate Justice Taranaki
- EcoEngage
- Environmental Defence Society
- Forest & Bird
 - National Office
 - Individual form submissions
 - Nelson Tasman Branch
 - Tauranga Branch
 - Wellington Branch
- Sanctuaries of New Zealand Incorporated
- Styx Living Laboratory Trust
- Tāne's Tree Trust
- The Water and Wildlife Habitat Trust
- World Wildlife Fund New Zealand
- Yellow-eye Penguin Trust

11.4 Community and recreation groups

- Climate Justice Taranaki
- Community Waitakere
- EcoEngage
- Fish and Game New Zealand
 - Auckland/Waikato
 - Central South Island
 - Eastern
 - Hawke's Bay
 - Nelson Marlborough
 - North Canterbury

- Northland
- Otago
- Taranaki
- Wairarapa
- Wellington
- West Coast
- Game Animal Council
- Go Eco
- Horowhenua Freshwater Anglers Club
- Manawatu River Source to Sea
- New Zealand Deerstalkers Association New Zealand
 - National organisation
 - New Zealand Deerstalkers Association Hutt Valley Branch
 - New Zealand Deerstalkers Association Rakaia Branch
- NN Hunting Guide
- New Zealand Outdoors Party
- Otari-Wilton Bush Trust
- Pest Free Kaipatiki
- Predator Free New Zealand Trust
- Predator Free 2050 Limited
- Primary Land Users Groups
- Project De-Vine Trust
- Raglan joint submission
- Reconnecting Northland
- Riddiford
- Styx Living Laboratory Trust
- Takaka Hill Biodiversity Group
- Tasman Environmental Trust
- Waitākere Ranges Protection Society

11.5 Industry

- Aquaculture New Zealand
- Bathurst Resources Limited
- Beef and Lamb New Zealand
- Birchfield Coal Mines Limited
- Commercial Fisheries Forum
- Federated Farmers New Zealand
- Fisheries Inshore New Zealand & Deepwater Group
- Forest Owners Association
- Horticulture New Zealand
- Mercury New Zealand Limited
- NZ Coal and Carbon
- NZ Farm Forestry Association
- Oceana Gold
- Orana Wildlife Park
- PF Olsen
- Straterra
- The Aggregate and Quarry Association

- The Wolds Station Limited
- Tourism Industry Aotearoa
- Trustpower
- Wellington Zoo
- Zoo Aquarium Association

11.6 Local government

- Ashburton District Council
- Auckland Council
- Central Otago District Council
- Christchurch City Council
- Dunedin City Council
- Greater Wellington Regional Council
- Hamilton City Council staff
- Hurunui District Council
- Kaikoura District Council
- Local Government New Zealand
- Mackenzie District Council
- Nelson Marlborough Conservation Board
- Queenstown Lakes District Council
- Selwyn District Council
- Waikato Regional Council
- Waimakariri District Council
- Waipa District Council
- West Coast Regional Council
- Western Bay of Plenty District Council

11.7 Science community

- We received 24 submissions from the science community.

11.8 General public

- We received 30 submissions from the general public.

Appendix 2—Online survey responses, public workshops and focus groups

This section covers engagement inputs from: survey responses, Treaty partner hui, public workshops and focus groups. Survey responses are from the 14 survey questions that were hosted on the online Survey Monkey platform. The responses in this section are distinct from the written submissions and the Treaty partner and interest group summaries.

The source of the data is indicated below e.g. survey responses.

11.9 Q1: How well does Part 1 of the discussion document set out the problem and consider the challenges and opportunities facing nature now and in the future?

In general, submissions responded favourably to the problem definition and the challenges and opportunities facing nature as set out in Part 1 of the discussion document. Submitters agreed that nature is intrinsically valuable, that it is central to our wellbeing, that nature in Aotearoa New Zealand is unique, and that our prosperity is built on the natural environment.

Many submitters were of the view that nature provides us with services essential to our survival and that labelling non-indigenous flora and fauna as ‘bad’ and indigenous species as ‘good’ is an inaccurate reflection of New Zealand’s environmental system. For example, many submitters thought the strategy should propose more proactive ways of using deer, pigs, possums etc as the basis for employment and wealth creation.

In terms of pressures on biodiversity, many submitters saw the economy, and the drive for increasing growth and profitability as fundamental to biodiversity loss. Many submitters expressed that profitability is driving farming towards unsustainable agriculture and that poorly planned urban development is having a serious adverse effect on biodiversity. Climate change is seen as a threat by submitters and using biodiversity to mitigate and adapt to it are seen as useful strategies. Many submitters thought that the strategy needs to include a much greater emphasis on removing domestic cats and dogs from natural habitats. Many think these domestic animals are having a major negative effect on our biodiversity.

11.10 Q2. What do you think of the proposed strategy framework? Does it provide a useful way of linking the elements of the strategy together?

11.10.1 Biodiversity Hivemind

There was a high level of agreement amongst participants that science, technology and indigenous knowledge were all necessary to ensure that best practice is applied to protecting and restoring biodiversity. There was less agreement about the role of Māori in governance processes as proposed in the discussion document.

Most submitters were of the view the framework is a positive direction for the strategy in terms of recognising the importance of and integrating Te Ao Māori. Many submitters supported the Te Ao Māori grounding for the framework, and thought it was essential for the strategy to be successful. There was strong support for the use of Te Reo with English translations so that everyone can connect with and understand the framework. However, the framework was perceived by many submitters to be confusing to interpret and/or disconnected from the other components of the Discussion Document.

11.11 Survey responses and public workshops

Many submitters said they liked the idea of the poutama framework and how it weaves in the Te Ao Māori world. However, some submitters said the ANZBS would benefit from a logic framework that shows the direct links between different parts of the framework. Many submitters suggested changes to the diagram in this section to provide a more balanced perspective of the different domains, stakeholders and diverse interests in the ANZBS.

Below are the main themes that were evident in the survey responses and public workshops:

11.11.1 Simplicity

The framework was confusing to some submitters, and many commented that it could be presented more simply and with greater clarity. Some participants in workshops and focus groups found it useful when it was talked through but struggled to connect with it on paper.

11.11.2 Interconnectedness

The framework would benefit from being woven together to represent a holistic view or interconnectedness. The three panels were seen as too separate to each other and only focused vertically, rather than the connections horizontally.

11.11.3 Empowered vs enabled

Some Treaty partners considered the use of the term 'empower' in the long-term outcome to be demeaning and noted that it is not for the Crown to empower Māori, as Māori are already empowered by themselves i.e. Tangata Whenua are empowered to exercise their role as kaitiaki. It was suggested that the outcome in the framework could be better expressed as: Tangata Whenua are resourced/supported/enabled to exercise their role as kaitiaki. Or more simply: Tangata Whenua are exercising their role as kaitiaki.

Treaty partners also emphasised the need to be careful about the terms we use in the strategy and the framework and how they are translated to ensure that the meanings are correct.

11.11.4 Poutama design and meaning

Some Treaty partner submissions also noted that the poutama is about ascending in knowledge, and that the words 'action, assess, action' do not fit with the traditional interpretation. They considered that the framework was a useful way of showing the key proposed elements of the strategy, but that the Crown should be aware that it was departing from the traditional interpretation and that Māori may interpret it from that lens.

11.11.5 Integration

Survey responses made the following suggestions concerning integration:

- The elements of the strategy presented could be better integrated by the framework, and the connections between them made clear.
- Show the interlinkages between the three sets of long-term outcomes, perhaps with greater weaving horizontally in the diagram
- Greater clarity of the logic flow is needed, for example how the vision relates to the outcomes, goals, shifts and actions.
- Show how the side-pillars interact with the rest of the framework.

11.11.6 Implementation

There was a desire to see the system shifts included in the framework and how they connect to the other elements of the strategy. This was seen as important in conveying that actions and changes will occur as a result of the strategy.

11.11.7 Sustainable use

Some submitters were concerned that sustainable use was not provided for clearly enough in the framework. In particular words such as ‘restoration’ and ‘protection’ did not give a sense of the reciprocal relationship between humans and nature. Moreover, this could be better balanced with aspects of sustainable use such as harvesting kaimoana. More generally there were a number of comments on the degree to which economic activity should be integrated into the strategy. Some submitters were of the view that to be successful we need to be thinking about how the protection of biodiversity intersects with the economy, while others thought that the strategy should focus only on indigenous biodiversity as it won’t be focussed on anywhere else.

11.11.8 Contributions of groups

There was agreement that we will all need to work collaboratively in order to achieve our aspirations for nature. Some groups felt that they could not see themselves and their actions reflected in the framework, for example farmers, landowners, regional councils, communities, businesses, hunters, urban people and conservation organisations.

11.11.9 Mātauranga Māori and science

Most submitters were of the view that mātauranga Māori was an essential element, but that more thought should be given to where it sits in the framework. There was some support for the ‘action, assess, action’ concept, and the importance of having this at the core of the framework. Some submitters thought that addressing data and knowledge gaps should be more prominent in the framework.

11.12 Q3. What do you think of the proposed vision for Aotearoa New Zealand and its timeframe?

There was support from many submitters for the vision in principle, with a few saying it is aspirational. The two prominent key themes in submissions were how “nature” is defined and the timeframes that were used. There were diverse opinions among the remaining submissions, that often contradicted each other.

Some submitters said the vision could be more ambitious while a few said it needs to be more realistic and pragmatic. One submitter said the vision needs a statement to connect all New Zealanders to biodiversity so that there is more of a sense of stewardship and responsibility for the outcomes.

11.13 Treaty partner

Most Treaty partners were supportive of the inclusion of mahinga kai in the vision. However, some Treaty partner considered that the vision needs to refer to mana whenua as a partner or having a role in decision-making and governance. Treaty partner suggested that the vision for New Zealand by 2070 needs to include, “Mana whenua feel they can genuinely practice their role as kaitiaki, and nature is thriving to the extent that they are able to practice customary take.” Some Treaty partner saw that without this context, the vision can be read as limiting this right to only being exercised in the future.

11.14 Survey responses and public workshops

11.14.1 Definition of Nature

The definition of 'nature' in the vision was a common theme in the submissions. There was widespread concern that the word 'nature' was too vague, and it was not clear what it encompassed. Submissions questioned whether non-indigenous biodiversity might be included in the definition of nature and be given equal standing with indigenous biodiversity. Some submissions expressed concern that the vision was not explicit enough in its focus on indigenous biodiversity and many submissions suggested specifically using 'indigenous' and 'non-indigenous terms. There were multiple submissions stating that the strategy should include valued non-indigenous biodiversity e.g. non-indigenous biodiversity for agriculture, hunting and fishing.

11.14.2 Timeframes

There was agreement among submissions that ecological timeframes were appropriate to acknowledge e.g. the lifetimes of rimu or kauri. However, many submissions expressed concern that 2070 was too far away and did not reflect the urgency and scale of action required. Many submissions suggested 2050 as an alternative timeframe, and that it would align with Predator Free 2050. Some submissions also noted that a shorter timeframe is supported by the fact that the previous strategy is 25 years old and is no longer fit for purpose.

11.14.3 Additional themes

- Some submissions thought the vision statement was too woolly/intangible whereas others found it appropriately inspirational/high level.
- A greater emphasis should be placed on humans being part of the ecosystem and that human life fundamentally relies on nature.
- Climate change needs to be more central to the vision.
- There was a concern in submissions about restoration work coming at the expense of protecting indigenous biodiversity.
- The vision should acknowledge the utility of biodiversity (e.g. food gathering).
- There was a concern about the obligation to consider indigenous biodiversity in some commercial contexts where it doesn't exist (e.g. a pig farm or cut flower glasshouse).
- There were contrasting opinions about whether non-indigenous biodiversity should be valued in the strategy. Some submitters value non-indigenous game species (e.g. trout, deer) and want more consideration given as to how they could fit in the strategy. Other submitters were concerned that the strategy could be "hijacked" by concerns for non-indigenous biodiversity.
- There was support for biodiversity being accessible to people. Some submissions expressed the view that biodiversity should be tangible and experienced where people live, including urban areas. Some specific suggestions to achieve this were: obligations for councils to use native plants for landscaping, and all schools having areas of indigenous biodiversity. A few submissions were of the view that not all nature should be accessible, as that can cause damage.

11.14.4 Biodiversity HiveMind

The vision that by 2070, nature in Aotearoa New Zealand should be healthy, abundant, and thriving was supported by most participants. However, many participants saw this as requiring a move away from monoculture agriculture and infinite economic growth. Many participants considered that New

Zealand should and could reduce the pressure on our biodiversity by following the advice of the World Economic Forum and other major institutions to invest in creating a circular economy that minimises waste and makes the most of resources.

11.15 Q4. What do you think about the proposed values and principles? Is there anything you would add or change? Which of the values and principles do you think are most important?

11.16 Survey response and public workshops

Many submissions supported the proposed values and principles. In particular, there was the highest support for the principles/values of knowledge, kaitiakitanga, manaakitanga and mahi whaipanga being included in the ANZBS. Some submissions viewed the values and principles as vague and overly bureaucratic. A few submissions noted tensions and sought clarity on how the principles will be applied.

A few submitters said the values and principles should be added to legislation and applied across all activities within the natural environment. One submitter, for example, said the principles are largely irrelevant if they are non-binding.

11.16.1 Values

Many submitters said the values should have an English translation. One submitter said the values are focused on economic rather than essential life support functions.

Key suggestions on new or amended values by individual submitters included:

- A value on leadership should be included as without strong and committed leadership there can be no reversing of the current situation.
- The value on kaitiakitanga could be strengthened by encouraging stewardship initiatives through incentives.
- The values tohungatanga and mana motuhake should be reviewed. They are key concepts for Māori and are inappropriately and superficially defined in this section.
- A new value should be added on accountability. 'We take responsibility and we monitor our performance, so we are accountable.'
- There should be more discussion on autonomy and sovereignty.
- There should be a focus on diversity and freedom.
- Recognition of ecological limits
- Urgency to address biodiversity decline and mitigate/adapt to climate change
- Integrate a mauri model approach
- The intrinsic value of nature be included
- Human beings and their dependency on nature/biodiversity
- For the whakapapa principle, detail the interrelationships between human beings with biodiversity
- Include Māori terms in the glossary

11.16.2 Principles

A number of new principles were proposed by submitters:

- The precautionary principle as it is well known and applies to climate change.

- A principle around what we are aiming to restore reflecting that ecosystem function is as important as having a selection of species present.
- A principle relating to New Zealand's international obligations under the CBD.
- A principle that recognizes and rewards biodiversity work, particularly on farms where costs are largely carried by individuals for no commercial gain.
- Principles on intergenerational wellbeing, local knowledge, duty of care and mandatory offsets.

11.16.3 Respect for property rights

Many submitters said respect for property rights is critical to obtaining buy-in from property owners and rights holders. The concept of partnerships is key in this regard. The ANZBS can recognise that property rights need to be respected, and in turn, property holders need to respect their obligations to conserve natural resources for the future.

11.16.4 Non-indigenous biodiversity

Some submitters did not support this principle as it is written as they do not necessarily support the priority of indigenous biodiversity over non-indigenous biodiversity. One submitter said this should be considered on a case by case basis which takes into account the need to respect property rights.

One submitter said there is undue emphasis given to management of non-indigenous biodiversity allowing for its use which could compromise protection. In their view, economic development should not be a priority of the ANZBS, and this should be made clear in this section.

Other submitters said that more thought is needed on the management of non-indigenous non-pest species to ensure that the values and benefits/ecosystem services associated with these species are considered.

11.16.5 Biodiversity HiveMind

Most HiveMind participants viewed ecosystems as interconnected and believe that any biodiversity strategy should take an intergenerational view. They agree with the principle that biodiversity should be managed in a coordinated way across boundaries and that the biodiversity system needs more collaborative decision-making that involves all affected parties. Most participants are onboard with the values of learning, knowledge and courage. They agree with the proposal that conserving our indigenous biodiversity should be a priority. While a majority of people were in favour of respect for property rights and compensating landowners, this was not by an overwhelming majority. Between 55%-60% of both opinion groups held this view. However, many more participants believe many private landowners will protect native biodiversity on their land if they know how to and are assisted and encouraged.

11.17 Q5. What do you think about the proposed long-term outcomes? Is there anything you would add or change?

11.18 Survey response and public workshops

Many submitters said they support the outcomes in-principle but proposed changes to words and phrases that reflected similar sentiments to those raised in the general overview section. A few broader comments were also made. Many submissions stated that the outcomes need to be better defined and more detail required on the proposed actions required to achieve the outcomes.

11.18.1 Whakahau - empower outcomes

Some submissions were of the view that there needs to be increased recognition of the role of all New Zealanders in looking after the environment. These submissions considered that the role of guardianship is for all people e.g. all New Zealanders are empowered to protect and restore nature.

Treaty partner submissions outlined that the role of kaitiakitanga is more complex than simply a guardian or protector. The traditional concept of kaitiakitanga is part of a complex, social, cultural, economic and spiritual system that has been established through the long association of iwi and hapū with land and waters. As kaitiaki, tangata whenua are expected to follow correct tikanga (practices) when growing, collecting and harvesting food.⁹ For more information on Treaty partner and kaitiakitanga, please see section 6 – Treaty partner.

Suggestions to include outcomes specific to:

- Personal responsibility to act in a way that is “tika” for Aotearoa’s indigenous biodiversity, whether you are in the community, business or government.

11.18.2 Tiaki – protect & restore outcomes

Many submissions supported in-principle the outcome of protecting and restoring a full range of ecosystems on land and in water. Some submissions considered it necessary to include measures of extent and connectivity in assessing a full range of eco-systems.

Most submissions supported the management of New Zealand’s biodiversity to be resilient to the impacts of climate change. However, some submissions discussed how adaptable New Zealand’s biodiversity is to the effects of climate change.

One submission recommended outlining the role of taonga and how to protect/restore them.

Suggestions to include outcomes specific to:

- International collaboration and leadership.
- Emphasis on protecting and restoring marine biodiversity.

11.18.3 Wānanga – systems and behaviour

Suggestions to include outcomes specific to:

- Land development does not reduce natural habitats or negatively impact biodiversity
- “Restoration and protection of indigenous biodiversity is recognised as a fundamental requirement for New Zealand’s wellbeing and continued economic prosperity”.

11.18.4 Biodiversity HiveMind

There is a high level of agreement with the long-term outcome that all New Zealanders can connect with nature and recognise its value in supporting intergenerational wellbeing. Many participants considered that non-indigenous species and ecosystems need to be managed to maintain or enhance indigenous biodiversity, while providing for the cultural, economic and recreational values that non-indigenous species provide. The ability to hunt non-indigenous species such as deer and tahr featured prominently in responses from Opinion Group A.

⁹ Science learning hub, article: Understanding Kaitiakitanga. For full article, please see [here](#).

11.19 Q6. What do you think about the proposed set of goals? What are the most important things to track to measure our progress? What else should be included?

11.19.1 Survey response and public workshops

Many submitters said they support the goals in principle noting that measurements still need to be developed for them and that it is difficult to elaborate on the goals without knowing more detail.

A lot of feedback provided in this section related to implementation rather than overarching goals. Many submitters noted gaps and/or made comments on how the goals could be improved and further refined particularly in relation to scope, ambition, timeframes and targets. The main gaps mentioned were in relation to mapping, marine environment, tree plantation, plants, economic transformation and tangata whenua.

Some submitters said that goals should be aligned across initiatives such as Predator Free 2050 as well as management frameworks. Some submitters said a domain or risk-based approach to setting goals would be useful to make better linkages between national directions and the multiple strategic frameworks (such as fisheries or the various NPSs).

A few submitters noted that there is no mention of people in the goals despite people playing a key role in the success of the ANZBS. A few submitters said goals should consider people's values and perceptions over time. One submitter said social goals that are fundamental to achieving success need to be included along with appropriate methods of achieving these behaviour changes.

Some submitters said some of the goals are unrealistic and overly optimistic/aspirational. One submitter said the goals are meant to be for all New Zealanders but appear to be very DOC focussed.

11.19.2 Land mapping and protection goals

Some submitters sought more clarity on the use of 'significant' and 'protected' for this goal.

Some submitters support mapping Significant Natural Areas but said that this will be complex, lengthy and expensive.

One submitter said information is needed about species distributions and ecological processes as well as the mapping of the physical environment.

One submitter said a goal should be added that creates an inventory of dunes of national significance by 2021 with these systems restored to full functionality by 2035.

11.19.3 Threatened species goals

A few submitters said a review of threatened species, including marine and freshwater species, is needed to inform planning. One submitter proposed a new goal so that by 2030 there is no lack of data on threatened species and that recovery of at least 30% of our known threatened species has begun with increasing populations. By 2050, no species should have threat classifications of 'nationally critical, endangered, or vulnerable.'

A few submitters said the expanded ex-situ conservation of threatened species needs to be assessed and this should include the potential for expansion of indigenous flora seed banks.

11.19.4 Ecosystem and habitat restoration goals

A few submitters said the 2030 goal 'no net loss' should be amended as it is otherwise misleading. 'No net loss' implies loss in one place can be reinstated somewhere else. However, ecosystems are

rare and naturally uncommon, so their restoration is difficult or impossible. There should therefore be no further loss of the extent of rare and naturally uncommon terrestrial indigenous habitats.

11.19.5 Marine ecosystems and species goals

A few submitters wanted more ambitious targets and timeframes for identifying priority marine areas and introducing no-take Marine Protected Areas.

Some submitters said the goal of zero bycatch by 2050 is too far away and needs to be brought closer.

Some submitters suggested specific goals for protecting Hector's and Māui dolphins.

11.19.6 Coastal and wetlands goals

A few submissions were made on priority areas stating it is important to identify priority actions particularly in lowland, urban, estuarine and coastal areas where historic losses and ongoing drivers of decline are greatest. One submitter said surrounding land areas need to be managed so they do not lead to further deterioration of the few and precious wetland areas. Two submitters said converting farm drains to lower nutrient loading and restoring wetlands was seen as important.

11.19.7 Freshwater and catchments goals

One submitter proposed a set of goals so that by 2025 all degraded rivers are improving, and an action plan is put in place for rivers resistant to improvement. This submitter added: By 2030 all freshwater invertebrates (including those in groundwater) should be identified across major catchments. Furthermore, that by 2050, the adult population of indigenous freshwater species should be increasing year on year. Some submitters were of the view that a goal should be added on improving water quality.

11.19.8 Predator and browser goals

Some submitters said this goal needs to be made more realistic. One submitter, for example, said in some cases eradication may be difficult to achieve due to cost and location. Management of predators may be more appropriate.

One plant conservation submitter noted that in the case of Predator Free 2050, there may be unintended flow on effects for conservation. One science submitter suggested the goal to free New Zealand from stoats, possums and rats by 2050 should be replaced with 'By 2050 species will be self-sustaining in the presence of pests and predators, or safely protected behind fences and on offshore islands.'

Some submitters said the scope of this goal should be extended. Conservation submitters in particular said that stoats in the 2050 goal should be replaced by mustelids. Some submitters said this goal should include a broader range of predators and browsers including feral browsing mammals and ungulates (such as cats, wallabies, pigs, goats, tahr, chamois and deer).

A few submitters said this goal should apply across all public conservation land and other high value biodiversity sites. Others sought clarify on whether this goal was referring to statutory nature reserves as defined in legislation; and whether non-indigenous should be applied to both browsers and predators as there are also indigenous predators.

Some conservation submitters said the Predator Free 2050 target should be aligned to this goal. One submitter said new targets should also be created around land area that is predator free and protected from reinvasion.

A few submitters did not support this goal. One community and recreation submitter, for example, said eradicating all non-indigenous browsers from all offshore nature reserves by 2025 does not acknowledge the value of animals to hunters, especially the North American Whitetail Deer on Stewart Island.

One community and recreation submitter suggested a new goal is added so that by kill of indigenous and non-target valued non-indigenous species during pest control operations is reduced to zero and pest control operations use methods intended to minimise suffering of target animals. This will drive better protection of non-target species who currently are commonly killed in pest control operations and more humane treatment of other target species.

11.19.9 Land-based weeds and freshwater pest goals

Many submitters across all groups said that a goal to eradicate 'freshwater pests and land-based weeds' should not be based on an arbitrary number. Different regions have different weed species and a one-size fits all approach will not work. One conservation submitter said priority weeds should represent species which threaten significant ecosystems across a broad geographic range in New Zealand.

A few submitters said marine pests should be included in this goal. One marine industry submitter said the Biosecurity Act and standards, such as the craft risk management standards and proposed NES Marine Aquaculture, are important to the delivery of this type of goal and should be referenced.

One submitter said an additional 2030 goal should be added that all invasive weeds are eradicated from offshore island nature reserves and other priority hotspots. Another submitter said wilding conifers should be eliminated from public conservation land and other high biodiversity value sites by 2030.

A few submitters sought clarity on how 'hotspots' will be determined for this goal and whether this extends to private land.

11.19.10 Tree plantation goals

Some submitters said additional goals should be added to plant native trees rather than non-indigenous species. One board, for example, said 20 million native trees should be planted by 2050. This would support climate change measures.

A few submitters also said that targets should be set for maintaining and increasing tree and forest canopies. One submitter said that all regions should have rules to preserve and protect remnant flora and trees greater than 50 years old that are endemic to their ecological area by 2050.

11.19.11 Urban areas and productive land goals

Conservation submitters suggested some new goals are added to enhance urban biodiversity. One submitter said that by 2030, urban biodiversity should be enhanced in every major centre by at least 30% and Wellington should be the 'greenest city in the world'.

Another submitter suggested adding a goal so that by 2030 there is a 50% increase in biodiversity corridors across urban and productive landscapes, and a further 50% increase by 2050. One submitter said a specific goal to create a forest and tree canopy in Auckland should also be included in the ANZBS.

11.19.12 Climate change goals

Some submitters stated that more ambitious targets for greenhouse emissions are needed or the costs of economic activity will continue to be externalised onto others. One council suggested

adding a goal for increasing the contribution of biodiversity to climate regulation. For example, carbon stocks in indigenous biodiversity have increased by x% by 2025.

Some submitters suggested amending this goal so that by 2030 climate change risks to marine biodiversity are being effectively managed and incorporated into all marine planning and management frameworks.

A plant conservation submitter suggested amending this goal so that the effects of climate change on plants is integrated into ecosystem management plans and species management plans and strategies by 2025 as plants are particularly vulnerable to sea level rise, changes in rainfall patterns and shrinking alpine habitat.

One submitter said a goal should be added so that by 2025 all agencies make a commitment in their annual plan to reduce their carbon footprint by >10% and that this should be reported on in their annual report; and most regional councils across New Zealand have adopted Water Sensitive Urban Design as mandatory for all new and upgraded buildings and infrastructure.

11.19.13 Tangata whenua related goals

One council said it is not clear what meaningful engagement with mana whenua looks like.

One submitter proposed a set of goals so that by 2025 the Te Ao Māori perspective is embedded into the system and tangata whenua empowered as kaitiaki; mātauranga Māori is driving biodiversity management from local to national levels and tangata whenua are key decision-makers at all levels of governance and management; tangata whenua are involved in setting up local biodiversity hubs and there are opportunities for iwi/hapū to contribute to enhancing local ecosystem wellbeing, cultural survival and knowledge development; there is a programme to facilitate graduates to move into roles at DOC and other organisations; and Māori are funded and supported to tell their conservation stories and share successes in indigenous approaches to conservation at international fora and conferences.

By 2030 the mauri, mana and wellbeing within ecosystems is enhanced; tangata whenua are exercising their role as kaitiaki, which includes support to help them manage and monitor local indigenous species, as well as enhanced mahinga kai and cultural take; and Māori-led restoration and research methods, which may be supported by science and innovative technology, are encouraged.

One science submitter said a goal should be added so there is increased involvement of iwi and scholars of mātauranga Māori in the care, development and use of collections. This will further integrate Māori cultural concepts in New Zealand society.

One submitter said there should be no customary take of indigenous birds and threatened species.

11.19.14 Community and education goals

A few submitters noted there were no goals related to the number of people being engaged in actions to restore nature to support the empowering communities shift. These submitters proposed goals are added so that there are 100,000 active volunteers by 2025; and one in every ten citizens by 2050.

Another submitter proposed a set of goals so that by 2025 a network of biodiversity hubs is set up across New Zealand; and that the value of biodiversity and participation is built into the education system at every level. By 2030, communities should be actively engaged and empowered to restore

and protect biodiversity; and every school is engaged in biodiversity restoration activities and schools collectively achieve a biodiversity net benefit of at least 30%.

One submitter said there should be a goal focussed on proving the benefits of communities in delivering biodiversity outcomes.

11.19.15 Economic and business goals

A few submitters said that the 2050 goal for committing business to biodiversity by 2050 generally lacks meaning, aspiration and urgency. A few of these submitters along with some other submitters said farmers should not be targeted in the 2030 goal. A few submitters said the 2050 goal should be made broader so that every New Zealander is helping to restore nature such as individuals, farmers, iwi, communities and businesses, not just every business.

A few submitters suggested bringing forward the goal on achieving biodiversity outcomes as a part of standard farming practice to 2025 as it is fundamental to other goals. This goal needs to acknowledge that farmers are supported to achieve biodiversity outcomes, rather than solely establishing a regulatory framework.

One submitter suggested a new goal is added around ecological enterprise or ecological economy that would allow for increased employment within the environmental space.

One submitter suggested measures could be added to these goals that monitor the effects of economic activity on biodiversity such as triple bottom-line accounting or allocating a specific percentage of revenues to environmental goods.

A few submitters proposed new goals are added so that the value of biodiversity is fully accounted for in the economic system. One submitter suggested 2030 goals to support this with a number of supporting actions so that by 2030:

- National economic reporting takes full account of value of biodiversity (economic, intrinsic, and for social cultural wellbeing). The net benefit and costs to biodiversity from economic activity is a key objective of national accounting and reporting.
- The value of biodiversity is central to national, regional and local economic development strategies, poverty reduction strategies, planning processes, and accounted for in natural resource-use decision-making.
- Top banking and financial institutions are committed to and driving economic transformation to a green economy and sustainable financing of biodiversity restoration and protection.
- Effective biodiversity restoration and protection activities are supported/linked with sustainable funding from private and corporate sources.

11.19.16 International goals

Comments on international goals varied. One submitter noted that New Zealand is already acknowledged internationally as a source of biodiversity and restoration know-how. It is unclear how any change to the status quo would be measured.

One submitter said Treaty of Waitangi partners should be a part of New Zealand delegations and teams working on international agreements such as the IPBES and the CBD. Another said a goal should be established on providing international development aid, particularly to the Pacific to restore and protect their natural resources. One submitter said legislation should be introduced by 2025 to regulate the importation of products contributing to biodiversity loss overseas.

One general public submitter said we should aim to repatriate all overseas taonga by 2050.

11.19.17 Biodiversity HiveMind

Almost all HiveMind participants (92%) agreed that more no-take marine reserves should be created, especially in the habitat of endangered animals, like Māui dolphins and endangered seabirds. In addition, 86% agreed that we need more protection corridors that run from the sea to the mountains, managed to allow native species to thrive, and 84% agreed that our biodiversity habitat and climate change responses should go hand in hand. Many submitters (49%) agreed that populations of non-native species that are valued for recreational or economic reasons but that negatively impact native species (e.g. tahr, trout) should be eliminated.

11.20 Q7. What do you think about the proposed plan for implementation planning? What do you think are the requirements for a governance structure to oversee implementation planning and delivery?

11.21 Treaty partner submissions

Almost all Treaty partner submissions stated that the ANZBS implementation plan needs to recognise the role of mana whenua as DOC's partner. Treaty partners expressed concerns that the strategic direction is not informed by a sound understanding of implementation.

11.22 Survey response and public workshops

Most submitters said implementation and monitoring is critical. However, they note there are gaps in the discussion document about how the ANZBS will be further developed, funded, managed, monitored and enforced.

Feedback received on implementation and governance has outlined broad support for:

- A governance structure that is accountable across all of government and with successive administrations.
- a collaborative process to develop the implementation plan.
- action plans reviewed and developed on a five yearly basis to ensure that the system shifts are relevant and priority actions are up to date.
- Independent reporting to ensure progress is reported on accurately and consistently
- substantive consultation with stakeholders.

Multiple submitters commented that the implementation section in the discussion document was light on detail making it difficult to provide detailed feedback.

11.22.1 Governance structure

Multiple options were proposed for which body is best placed to govern and conduct reporting on the strategy's implementation. These included:

- an independent officer of parliament e.g. The Parliamentary Commissioner for the Environment
- A cross sector governance group
- The Department of Conservation
- Natural Resource Sector agencies e.g. MFE the Ministry for Primary Industries, DOC, Land Information New Zealand, Te Puni Kōkiri, the Ministry for Business, Innovation and Employment.
- regional authorities

- an independent authority comprised of relevant scientists
- independent research bodies
- Regional biodiversity hubs
- Citizens Assembly on biodiversity - a body formed from citizens to deliberate and recommend options on biodiversity management. The membership of a citizens' assembly is randomly selected.

A small proportion of submissions stated that the governance structure should have representation from across the biodiversity system e.g. national and local government, Iwi NGOs, business, community groups.

Measures to help a wide range of people and organisations take part in the implementation of the strategy was stated as a top priority. Multiple submissions focused on the need to make the ANZBS a New Zealand journey, not simply a DOC journey and that an ideal outcome would be that every New Zealander feels accountable and responsible for biodiversity in New Zealand.

Detailed information was requested on the interconnections between the ANZBS governance structure and other governance structures (i.e. Predator Free 2050). Cooperation and alignment rather than isolation was stated as key as many of the ANZBS actions are interconnected and overlapping.

Multiple submissions recommended that the newly formed climate change commission should be integrated in the governance structure. Adapting to climate change and the comprehensive effects on biodiversity were sighted as critically important.

Some submissions recommended that national monitoring standards be established with central government agencies and DOC to implement and reporting on them consistently.

11.22.2 Funding and resourcing

Funding and resourcing are a particular concern for most submitters with most submitters noting that the ANZBS is silent on this. Many councils expressed concern about implementation and monitoring costs. One submitter, for example, said councils vary in terms of their capacity and capability to deliver the ANZBS. This is particularly the case in areas with large land masses, extensive biodiversity and/or small rating bases. Many councils said long-term funding and support is needed and this should be funded from central government.

There was a strong preference for greater resource allocation to community groups and social enterprises that are dedicated to on the ground biodiversity work to counter the risk that funding is concentrated in administration. An option is for resourcing to be appropriated at the local/regional level through trusts or other agencies.

A reporting template was proposed as an option to improve regular reporting on the strategy. It could be developed to meet the needs of funders and the strategy goals. One submitter recommended making reporting compulsory for an organisation to be eligible for further funding. This could streamline funding and reporting in various contexts e.g. national and local. The submitter was of the view that this option could increase efficiency and transparency.

11.22.3 Collaborative process

There was broad support for a collaborative process to design the ANZBS implementation plan with an emphasis on evidence-based planning informed by the science community.

Some Treaty partner discussed 'collective impact'. They considered that this concept can provide for collaboration and the ability to adjust policies and enable grassroots success in projects. Also, that this could enable better adaptive management for working with divergent views of mana whenua.

Recognising the value of Iwi Environmental Management Plans and raising their profile were discussed as a vehicle for integrating Treaty partner in the implementation of the Strategy.

11.22.4 Marine specific

A marine governance system was proposed by some submitters as an option to improve leadership. This group would set outcomes and prioritise funding/actions for the marine domain.

11.22.5 Implementation planning section

Submitters expressed the following views on the implementation planning section of the discussion document:

- Science communication and education was stated as key for implementing the strategy to increase public understanding and increase accountability.
- Annual publication of data sets for indicator species is preferable.
- Better engaging the hunting sector was proposed as a means to generating conservation outcomes. The hunting sector accesses remote areas and could be better incentivised to check and monitor trapping lines. A levy on hunting sector purchases was proposed to generate conservation funds.

11.22.6 Biodiversity HiveMind

Collaborative decision-making and coordination across boundaries are recognised by participants as key to the success of any biodiversity strategy. Evaluation and monitoring are also seen as critical to ensuring that governance, research, regulation and decision-making make the positive impacts proposed. There was also support for more funding. Without additional funding, many people thought it unlikely that the strategy would succeed.

11.23 Q8. What do you think about the proposal for progress reporting and review of the strategy? How do you think this reporting should take place to ensure it is useful, transparent, inclusive, and drives accountability?

11.24 Public workshops and survey responses

There was general support for the progress reporting section in the discussion document. Annual reporting with regular progress reviews were supported with a large proportion of submitters considering five yearly reviews to be the optimum time period while a smaller proportion considered more frequent or less frequent reviews to be preferable.

A large proportion of submissions stated that there was insufficient detail in the discussion document to provide comment on progress reporting. This included criticism on the lack of detail that the section provided in terms of which organisation/s are accountable for undertaking monitoring and reporting of the strategy's implementation; and funding sources to conduct progress reporting.

Independent reporting and adequate resourcing were raised as key issues to ensure robust progress reporting. Some submitters were of the view that reporting would need to also include non-compliance in implementation of the strategy.

Adaptive management was proposed by some submitters as a method to address implementation issues in addition to five yearly reviews.

Local councils consistently stated that it would be onerous for small district councils to conduct regular implementation assessment and reporting on the ANZBS. It was argued that the reporting would be a better fit at the national and regional level.

11.24.1 Measures and targets

Many submitters said it is critical that the ANZBS goals are measurable and realistic for monitoring to be useful. Some submitters noted the need to establish baselines as a priority. One submitter suggested a 2025 goal is set for establishing baselines.

A few industry submitters said they were concerned the measures will remain focussed on processes rather than outcomes. One submitter suggested an advisory committee is set up to feed into this process.

One conservation board said there is a need to develop an outcomes and performance framework with specific measures and targets by species and ecosystem types across domains, which is granular enough to identify risks and set regional directions. This should include behavioural targets to ensure human and land use impacts can be considered together.

A few submitters said it is important that measures are embedded into government performance measures including the Living Standards Framework and Wellbeing Budget. One submitter said reporting should rely on indicators or information which is already collected by government or councils and should not place a high additional burden on small groups. A few submitters said information and monitoring should be linked to the data commons.

One local government submitter noted that there are gaps about the state of biodiversity and trends in New Zealand. Councils and agencies have already begun working on this but more needs to be done to understand monitoring across national, regional, and local levels. For example, the current picture is focused on Public Conservation Land and doesn't consider losses on private land. This provides a false picture.

A few conservation submitters said measures should be used to monitor public perceptions and support. One submitter, for example, said the most important thing to track is public and industry awareness and active involvement with the plan and support for its finance. One conservation submitter said a simple online survey should be introduced to assess how well iwi rights and interests are respected and enabled, and what the key barriers and opportunities are to better enable practice of kaitiakitanga, with the purpose of establishing baseline data to monitor progress.

Another conservation submitter said overall engagement with nature should be tracked over time, along with awareness of the plight of our native species and causes, and the number of people taking actions.

11.24.2 Accessibility of data and reports

There was strong support for making biodiversity data and reports on the ANZBS public, transparent, and easy to understand. This could take the form of an interactive online tool that provides biodiversity data, reports and maps – a data commons.

The role of reporting in providing positive feedback was highlighted by some submitters because it can encourage all stakeholders to continue good practice and to inspire better practice. This point was voiced as particularly salient in generating and maintaining community engagement.

A single national data source that is easily accessed and allows for open-source contribution from volunteers, private landowners, NGOs, councils and businesses will contribute to measuring and recording outcomes.

Reporting on both biodiversity and human wellbeing was stated as important by a number of submitters. This would assist in linking the human wellbeing benefits of thriving biodiversity and people's connection to the natural world.

Some submitters were of the view that progress reporting will be most effective in drawing from contributing organisations reporting systems (such as State of Environment reporting and reporting for the International Convention on Biological Diversity).

Some submitters considered that a data commons needs to be linked to the websites of all relevant regulatory authorities and treaty partners in the strategy.

11.24.3 Monitoring and reporting timescales

Many submitters said they support five-yearly implementation plans and reviews. However, some submitters said there is still a need for regular and transparent monitoring and reporting. This will support accountability and provide some flexibility to adjust priorities if needed. One science submitter suggested this should be an annual process. Another submitter said an infographic format could be used to communicate progress.

A few submitters said the five-yearly reviews of the implementation plan should include a rebasing of targets that have not yet been met so that the new plan is not built on failed targets.

A few submitters said that the review of the ANZBS should be apolitical and independent of central government. A possible option to ensure a fair and transparent appraisal of the progress and implementation is the Parliamentary Commissioner for the Environment.

A few councils said existing national reporting systems could be utilized for monitoring under the ANZBS such as the Environment Reporting Act 2015.

Some councils said that they are already required to contribute to regional monitoring to some extent under the Resource Management Act but many of them have limited capacity to undertake this monitoring. One district council said it is a big issue for smaller district councils where lots of development is happening. They suggested that monitoring under the ANZBS fits better at a regional level.

Some submitters said they have an expectation that reporting and consultation on the ANZBS will be ongoing although a few submitters noted the risks in delaying action as a result of too much engagement. Another submitter suggested consultation only needs to occur when the five yearly implementation plans are being updated. One submitter said ongoing consultation supports momentum and commitment. It is important that processes are in place to ensure the ANZBS remains relevant, current and can be modified as new developments arise, in this submitter's view.

11.24.4 Compliance regime

A few submitters said a compliance regime is needed to enforce the ANZBS. One submitter said local government should be empowered to properly enforce regulations rather than rely on biodiversity

strategies, which are often non-regulatory. A few community and recreation submitters said regional councils need significant improvement in their monitoring and enforcement measures. One general public submitter said watching non-compliance of councils was important. A few submitters said the ANZBS should be established in legislation to support enforcement.

A few submitters said support should be provided to conservation groups to help them with legal challenges that otherwise divert their resources from core conservation work. One submitter, for example, said it is important that legal protection through covenanting is also considered as well physical protection for while legal protection through covenanting is the preferred method for securing indigenous biodiversity on private land, ensuring legal protection can be defended is also important. In this submitter's view, the ANZBS must recognise that those charged with protection need sufficient resources for litigation when faced with serious threats to protection.

A few submitters said that all fishing vessels should have on-board cameras and/or observer coverage to support compliance activities in the marine environment.

11.24.5 Biodiversity HiveMind

Almost all participants (88%) agreed that monitoring and evaluation of biodiversity management is crucial to ensure activities are effective and efficient. Most (69%) agreed that any biodiversity strategy must be measurable, and 60% agreed that the use of open-data commons, curating/visualising environmental, social and financial data from all users of the whenua will help make decisions more democratic.

11.25 Q9. What do you think about the five system shifts? Are they the right areas to focus on in the near term? Are there other areas that should be included?

Many submitters said they support the five system shifts in-principle noting that many of the priority initiatives under these shifts are already underway to some extent. However, some submitters are concerned the shifts are not enough. Some submitters proposed that an additional shift focussed on transformation of the economic system is needed. At least one submitter suggested a standalone shift for business could be introduced into the framework.

There was broad support among submissions for:

- the systems perspective that the system shifts proposed
- recognition of the importance of coordinated management of ecosystems and species at both a national and local level.

A few submitters said the system shifts need to be supported by significant cultural change; and a recognition that people have a far greater capacity to be flexible than most species and ecosystems.

Some submissions highlighted that the ANZBS can be more explicit in the link between implementation failures and the continued decline of indigenous biodiversity and nature across New Zealand.

11.25.1 Biodiversity HiveMind

No overall statements related to the five systems shifts. Relevant statements for each of the five system shifts are included in the following questions.

11.26 Q10. Getting the system right: Do you agree with the first steps? What other actions should be included?

The first system shift 'getting the system right' was seen by many submitters as crucial to the success of the strategy. While submitters perceived different system shifts to be the highest priority a high number of submissions perceived system shift 1 to be of the highest priority.

11.26.1 Treaty partner submissions

Many Treaty partner considered that the system shifts did not reflect the principles of partnership, reciprocity and active protection. In addition, that Treaty partner need to be engaged in each of the system shift actions. Some Treaty partner submissions supported the action to develop regional biodiversity strategies with tangata whenua in the priority actions for system shift 1. Many Treaty partner stated that iwi/whanau/hapū need to be included in the roles and responsibilities section.

The following suggestions were made by Treaty partner:

- The ANZBS needs to address the issues identified in the discussion document with the current legislative and regulatory frameworks. Consistent and effective strategies are required across all government workstreams.
- For the goals of the strategy to be met, review is required of current legislation and policy that does not meet the needs of mana whenua and cannot meet future challenges. The ANZBS needs to recognise that current, and future legislation and regulations need to be read to give effect to the principles of the Treaty of Waitangi.
- The strategy must address the issues identified in the discussion document with the current legislative and regulatory frameworks. Consistent and effective strategies are required across all government workstreams. For the goals of the ANZBS to be met, review is required of current legislation and policy that does not meet the needs of mana whenua and cannot meet future challenges. The ANZBS must recognise that current, and future, legislation and regulations must be read to give effect to the principles of the Treaty of Waitangi.
- Delegation of central government responsibilities needs to ensure the obligation to give effect to the principles of the Treaty is at the forefront of any regional or local governance or activities.
- The priority action to establish an interim governance structure to oversee the ANZBS implementation and planning needs to include mana whenua.
- The priority action to deliver regional biodiversity strategies needs to ensure the Crown's obligations under the Treaty are at the forefront of the development of those strategies. The development of the regional strategies must be appropriately resourced.

11.27 Public workshops and survey responses

Many submitters said they support system shift one noting that it is critical to enabling the other shifts. One submitter said success of the ANZBS is dependent on the speed at which this shift can be implemented.

11.27.1 Roles and responsibilities

Many submitters said that recognising and clarifying the diverse roles and responsibilities of different interest groups, sub-groups and people involved with the ANZBS is essential to implementation. Feedback generally reflected that this should consider roles and responsibilities of:

- Government agencies including non-traditional conservation agencies and crown entities such as the Ministry of Business, Innovation and Employment; the Ministry of Housing and Urban Development; and New Zealand Transport Authority.
- Treaty of Waitangi partners including iwi, hapū and whanau as well as mandated representative groups established through settlement deeds where relevant
- Regional/unitary councils and district/city councils and industry groups
- National and regional statutory conservation boards
- Industry groups and businesses, particularly those involved in primary industries, tourism and conservation, including both large and small businesses
- Independent institutions, scientists and experts such as universities and scientists
- NGOs including both large and niche NGOs
- Community and recreation groups
- Philanthropists
- The media
- The general public including consumers and tourists

11.27.2 Strategic alignment

Many submitters noted the many management frameworks that the ANZBS is linked to and the many initiatives currently being developed under these frameworks. For example, this includes:

- The various management frameworks already established in legislation such as the Climate Change Response (Zero Carbon) Amendment Act 2019, the Resource Management Act 1991, the Local Management Act 2002 and the Waste Minimisation Act 2008.
- The various legislative reviews currently underway such as the Biosecurity Review and the Crown Minerals Act Review.
- The various national policy statements that are already in place and may also be under review such as the NPS on indigenous biodiversity, freshwater management, coastal management, urban development capacity and highly productive land.
- The various programmes that support the ANZBS and are already being implemented such as Predator Free 2050 and One Billion Trees.
- The various public sector frameworks that support good public management such as the Treasury's Living Standards Framework.

Many submitters said that while they generally support strategic alignment and a more integrated management approach, they seek more clarity about the linkages of the ANZBS with all these various frameworks and initiatives. This should consider the roles and responsibilities across central and local government.

Some of these submitters noted the potential adverse impacts of misalignment such as duplicated planning processes and plans, inconsistent decision-making, inefficient resource allocation and litigation. This limits efficiency and effectiveness. One science submitter, for example, said the biggest implementation challenge will be coordinating and harmonising the various spatial divisions in terrestrial, marine, and freshwater environments.

Many submitters support the need for a review of these settings although one industry submitter said these type of reviews should generally be avoided to reduce the uncertainty and investment risks that come with regulatory churn. While many submitters saw this as an urgent priority one submitter said it should not be rushed. Views on what a review could entail varied, reflecting the

diverse interests of submitters. These views are consistent with some of the issues identified by submitters under management issues (refer to the section on key pressures).

A few submitters said a diagram which shows the relationship between the various management frameworks, initiatives and stakeholders would be useful.

11.27.3 National Policy Statement on Indigenous Biodiversity

Many submitters commented on the relationship between the ANZBS and NPSIB. Some submitters said they were confused about the linkages between the ANZBS and NPSIB given both are being developed at the same time. A few submitters said implementation of the ANZBS will largely depend on the NPSIB, which is being developed in parallel to the ANZBS.

One local government submitter said it was concerned the NPSIB will establish roles and responsibilities ahead of the ANZBS consultation process; and will also be seen as the only tool to deliver the ANZBS. Another submitter said that regulations aren't always needed as rules can be vulnerable to political whims if the public are not committed to long term reform.

A few submitters suggested a diagram which shows the relationship between the ANZBS and NPSIB would be useful.

11.27.4 Regional planning

Many submitters noted the important role that councils will play in implementing the ANZBS. While many submitters saw benefit in a nationally consistent planning framework with regional planning mechanisms, they said it is important that plans reflect the different needs of regions. A one size fits all approach is not appropriate. Local government submitters said it is imperative that they are further engaged on developing this framework.

A few submitters said legislation should be put in place to support the ANZBS planning framework noting linkages should be established with other relevant frameworks and regulatory tools such as the NPSIB. One submitter, for example, said clarifying role and responsibilities in legislation will resolve conflict and confusion. Another submitter said the key will be getting consistency across the many local authorities. However, a few local government submitters noted there are risks with taking a prescriptive approach to regional planning. One local government submitter, for example, said regions need the space to develop collaborative processes and strategies that reflect the culture and capacity of their communities.

Many submitters said more clarity is needed on strategic alignment across management frameworks and initiatives. One conservation submitter, for example, said regional plans should be linked to regional hubs to support collaboration and common goals. Another submitter said regional pest management plans under Predator Free 2050 should be integrated into regional biodiversity strategies to protect investments made in predator control and eradication.

11.27.5 Governance

Many submitters support the need for a governance structure in-principle to ensure accountability across successive governments and tiers of government, as well as monitoring, compliance and decision-making.

A few local government submitters said that robust governance is needed from the onset to inform effectiveness and review. The structure should be clear on purpose and responsibilities including relationships with other related structures and have representation across the system especially from regional and unitary authorities. It should also clarify how co-governance and co-design will

work. A few general public submitters and at least one council suggested this could be done through existing agencies rather than new bureaucracy. However, some effort needs to be focussed on understanding and addressing cultural, structural or systemic barriers to working together.

One local government submitter said it will be challenging for New Zealand to be clear how the ANZBS will be achieved and whether it is succeeding without strong leadership. It is important that governance options are investigated. This should include consideration of a national biodiversity management authority comprising all major statutory and financial stakeholders including local government and iwi representation. This would entail:

- A governance role that includes an advisory and oversight function of the changes required to enhance performance and ensure ongoing clarity of roles and responsibilities.
- A limited management role in establishing priorities and coordinating delivery against priorities, as well as raising awareness of issues, providing financial support for biodiversity across all sectors and overseeing the national response to monitoring.
- Recognition of the roles and functions of any new entity in statute and a clear mandate with a line of accountability to government ministers.
- Leadership arrangements at the sub national level that encourage collaboration including in the planning, prioritization and implementation of specific projects.

A few submitters said that any interim governance structure should include representation from across the spectrum of interests. One submitter suggested an independent science advisory group should be established to manage risks of sector-capture from those with vested interests. One science submitter, however, said it did not support collaborative arrangements as they feel that perfectly competent arrangements already exist within DOC and through local government.

11.27.6 Leadership and coordination

Some comments were also made on who should lead implementation. Some councils and conservation submitters said that while implementation requires a collaborative approach, there still needs to be an agency with overall responsibility for leadership, coordination and accountability. This lead agency should be reflected in the ANZBS and be given the mandate to do its work.

Some submitters suggested DOC should lead the ANZBS. However, others said it is unclear where the leadership will or should come from and question whether DOC should play this role. One local government submitter, for example, said one of the issues with DOC leading the ANZBS is that it is largely focussed on Public Conservation Land and doesn't generally engage in significant and sustained management of species or ecosystems beyond this. The functions of regional councils by comparison are not limited to any controls; and have largely developed without significant direction.

One submitter said reform should consider administrative arrangements across government and assess whether the current structure and arrangements are best placed to deliver optimal outcomes.

11.27.7 Biodiversity HiveMind

In terms of system coordination, participants agreed that roles and responsibilities in the biodiversity system need to be better defined and that there needed to be collaboration in decision-making and coordination across boundaries. There was also agreement that local district and regional plans and/or strategies, as well as national tools (e.g. national policy statements and legislation) should guide action on the ground.

11.28 Q11. Communities are empowered to take action: Do you agree with the proposed first steps? What other actions should be included?

11.28.1 Public workshops and survey responses

Most submitters said they support this system shift and that this shift gives recognition to the many community groups that are already actively supporting biodiversity. However, some submitters considered that it is important that the ANZBS better reflects the range of stakeholders involved; and the work they have already done at smaller scales (as well as at larger scales); and the different roles these stakeholders could play in the future.

Many conservation submitters said it is important the ANZBS recognises the advocacy work NGOs do as well as the opportunities for them to take on new roles. The ANZBS should find ways to empower this grassroots advocacy work. One conservation submitter said this shift could see communities take on roles that might traditionally be the domain of agencies. One science submitter said there should be consideration of ways to address the issue of community groups competing for funding. One general public submitter said support should be provided to community groups to help them with business cases.

Many community and recreation and some land-based industry submitters expressed similar sentiments about being recognised for the work they do in conservation. One industry submitter said it is important they are considered as contributing to part of the solution as well as the problem.

Some submitters noted the important role that volunteers already play in community conservation, but a few submitters said it is important not to rely on this. One science submitter, for example, said we should not heavily rely on the community as the situation was well past a community crisis approach. One conservation submitter said volunteer burn-out is a real issue. A few said that proper funding and support is needed for volunteers. One submitter said this should be a priority action.

A few submitters said this shift is critical to managing and resourcing biodiversity in urban areas, but urgency is needed. One council, for example, said direct experience of nature is what will win hearts and minds; and lead to some of the behaviour change needed under this shift. However, it would prefer to see some more direct action to deliver this shift. After 20 years, much of the thinking has been done. Nationally we are at a point where action can be taken.

11.28.2 Biodiversity hubs

Many submitters said they support the use of biodiversity hubs under this shift as essential to bringing together iwi, landowners, agencies, community groups, local authorities, NGOs, and individuals to coordinate biodiversity action. However, submitters note that the success of these hubs are heavily dependent on sufficient funding, implementation and the recognition of stakeholders as empowered partners. Some submitters said it is important they are about communities not government.

Some land-based industry submitters saw various expert roles they could play in regional hubs such as developing partnerships with landowners and providing community advice. A few industry submitters said funding and tools should be provided to help industry contribute to hubs where a few others said they could provide business expertise.

A few submitters noted that hubs are already operating in some areas. These structures and networks could be leveraged in these areas. It is not necessary to reinvent the wheel in all cases.

A few submitters said that hubs should be underpinned by social innovation frameworks and citizen science.

11.28.3 Education and awareness

Some submitters agreed that mainstreaming nature and getting public support is critical with some noting the importance of education and awareness initiatives as part of this shift. One submitter, for example, said there should be more focus on education for all including schools, businesses, tourists and immigrants.

A few submitters said that education is a key element of the ANZBS and more alignment between DOC and the Ministry of Education is required to ensure indigenous biodiversity is a part of the curriculum. One submitter said the provision of training/workshops at a national level would be beneficial. Many support the development of online portals and information sharing.

One science submitter said an information pack for communities should be prepared which outlines the different legal protection options available to them, how to engage with regional councils, unitary and territorial authorities, and the demarcation between different statutory bodies.

One industry submitter said good media relationships should be developed help build support particularly in some industry-focussed areas that are sceptical about environmental initiatives. Another said this shift should aim to leverage off existing environmental initiatives.

11.28.4 Empowering businesses and private landowners/rightsholders

Some submitters were concerned that there wasn't enough focus on industry in this section. One submitter, for example, said there are currently no priority actions related to engaging with businesses or increasing the number of businesses taking actions.

Some submitters said incentives rather than disincentives should be prioritised. Many land-based submitters said, that in some cases, restricting land use development may increase the decline in biodiversity as there will be reduced income from farm operations to spend on weed and pest control. Off-setting, off-site migration and compensation for unavoidable residual adverse effects should be options. It is not necessary for every species and habitat to be preserved.

Marine industry submitters noted that quota rights already provide industry with a good incentive for sustainable use. One marine industry submitter said that compensation could incentivise them to agree to surrender their rights under some circumstances.

Some submitters, particularly councils, said the use of offsets is unacceptable as it results in reduced biodiversity overtime; and clarity is needed on this issue. One submitter, for example, said mitigation or offsetting is not always effective or appropriate and is problematic to implement. Another said offsets for compensation of habitat loss attempts to balance habitat loss of one kind with habitat gain of another kind contributes to biodiversity loss by weighting/ranking habitat value.

One submitter said improved rights to enter private property where populations of threatened plants may be at risk would be a helpful. Rights of access may also be important if comparative biodiversity values need to be assessed as part of negotiating offsets.

Many submitters generally agree there are perverse incentives that currently limit individual landowners from conserving indigenous biodiversity. Some submitters, including many councils, said property rights need to be respected; and they support incentives to private landowners for the protection of biodiversity on private property where there is significant benefit for the wider community. Some submitters, including many councils, said the focus should be on working together

rather than imposing action. One council, for example, said experience shows that we need to be careful about placing obligations on private landowners, so we do not alienate existing and future grassroots initiatives. This sentiment was generally supported by land-based industry submitters.

Many submitters noted that rates relief is an option in some areas and making this widespread could be useful. However, in many cases the relief will still be too small to be an incentive and may not even offset costs. Some councils noted there are also issues of fairness for other rate payers who would need to bear the rates shortfall. This is particularly an issue in large rural areas with small populations. A few submitters suggested there is a public good element here which needs to be considered. One submitter said this priority would require scaling up of the Nature Heritage Fund to buy property or to support to landowners.

In addition to financial incentives, a few councils and conservation submitters said there should also be recognition and support of land and resource owners who are doing good things for biodiversity.

One science submitter said biodiversity ambassadors could be used to provide free independent advice to farmers and iwi. A number of forestry industry submitters also saw a role they could play in assisting landowners with land conservation.

A few boards and other submitters said more focus on all primary industries and not just farmers is needed. One board said businesses have one of the most significant impacts on environmental degradation in New Zealand and are being encouraged to engage with biodiversity initiatives. There needs to be incentives, support and regulatory/legislative frameworks in place to build on this.

Many submitters said there is a need for incentives to plant native trees over non-indigenous species. Forestry industry submitters note they will increasingly be asked to comply with climate change approaches.

11.28.5 Empowering recreational stakeholders

A few councils said there is also a need to empower recreational stakeholders. One council said that it is important to acknowledge that for some ecosystems like wetlands, the game bird hunting fraternity has made an enormous contribution to the protection and management of wetlands. There will be opportunity for game hunters to become more involved in the management of additional areas of lesser biodiversity importance. Canada and the USA provide good examples of where this is being done well.

11.28.6 Youth perspective

Many youth submitters provided comments that relate to this shift. Many said they consider New Zealanders' attitudes towards the environment and sustainability to be improving. For example, they have seen fewer plastic bags in circulation and more people taking advantage of reusable solutions. Suggestions for how New Zealanders might improve its levels of biodiversity included education programmes; each individual taking more responsibility for their environmental impact; and businesses stepping up to play their part.

11.28.7 Biodiversity HiveMind

Almost all participants (91%) agreed with the proposal to establish a partnership between the agriculture industry and government to develop and promote farming practices that protect and restore our biodiversity. 82% agreed that many private landowners will protect native biodiversity on their land if they know how to and are assisted/encouraged. Almost all participants (89%) agreed that we must continue to develop innovative ways of educating young people about our

biodiversity, and 87% agreed that education standards should require educational field trips to natural spaces for all school children. Almost all (82%) participants agreed with the proposal to get locals to help identify and set up as many 'mainland sanctuaries' as possible, and 75% agreed we need more advertising campaigns about NZ's unique flora and fauna, so we feel the need to protect our species and so that we know what to do.

11.29 Q12. Connecting ecosystems from the mountain tops to the ocean depths: Do you agree with the proposed first steps? What other actions should be included?

11.30 Public workshops and survey responses

Many submitters said they support this shift noting the importance of being able to manage across ecosystems and catchments to build climate change resilience and manage key pressures at different scales.

Many submitters said they support the mapping of ecosystems and catchments as an important part of this shift.

11.30.1 Marine ecosystems

A few submitters said there are significant gaps with marine priorities under this shift and expressed the need for urgency. One submitter said only two of the ten priority actions under this shift are related to the marine environment and these are both medium-term priorities. One council said prioritising the MPA work programme and Sea Change should be a priority. Another board and a few councils said there needs to be more focus on freshwater and coastal areas including harbours in this shift.

11.30.2 Biodiversity corridors

One conservation submitter noted the importance of this shift for plants. Unlike animals, plants cannot move about as individuals to escape harm or find new habitats, rather they move generationally by dispersing seeds and propagules. Biodiversity corridors are critical to ensuring plants can interact with their often highly specialised pollinators and dispersers and genes can flow freely between populations.

A few submitters including councils said the ANZBS should prioritise the building of pest free safe havens that allow for easy migration of native birds across the country, especially through urban areas. There is an opportunity to plan for forest corridors within new developments. However, one council noted there are limited opportunities to plant trees with intensive development due to section sizes.

Some submitters including councils said that this shift should reprioritise the planting of exotic species under One Billion Trees with native species. One council noted the window to influence where and what trees are planted is closing fast. This priority is advanced, and a biodiversity lens must be applied to all remaining applications. Another council said it has experience in removing pine trees and restoring them with native forest. The results of this restoration have been good, and it is hoped this can lead to a new ecological corridor. One submitter said more consideration must be given to combining areas of long- and short-term tree species rotations. Some submitters suggested that planting along waterways to provide connective buffers should be prioritised.

11.30.3 Farm plans

A few submitters said they support integrating biodiversity management into farm plans. However, a few councils said they but don't think farmers should be targeted over other land users. Urban land

developments and other forms of primary and industrial production should also be integrated. One industry submitter said integration of biodiversity into farm management plans will need to be supported by expertise and resources.

11.30.4 Biodiversity HiveMind

Participants recognise that ecosystems are connected and that actions need to be taken to ensure that connectivity is at the forefront of any future strategy. Almost all (92%) agreed that biodiversity is not just a rural issue, there are many biodiversity problems in towns and cities, and that there are large amounts of land in public ownership in NZ that could be used to enhance biodiversity (e.g. roadside reserves, schools). 90% agreed that ecosystems are interconnected, and biodiversity should be managed in a coordinated way across boundaries. There was also support for more protection corridors that run from the sea to the mountains, managed to allow native species to thrive, as well as more money and resources spent on protecting and restoring biodiversity and ecosystem services.

11.31 Q13. Empowering kaitiakitanga and mātauranga Māori: Do you agree with the proposed first steps? What other actions should be included?

11.31.1 Treaty partner submissions

Treaty partner stated that a fundamental shift is required in policy and the acts of decision-making and implementation to enable the principles of the Treaty of Waitangi.

The following suggestions were made by Treaty partner:

- Current programmes and initiatives by mana whenua must be supported in achieving the ANZBS outcomes. DOC must also support new opportunities for mana whenua to exercise kaitiakitanga. System Shift Two must give effect to the principles of the Treaty and uphold rangatiratanga, and must not be limited to the practice of kaitiakitanga and use of mātauranga Māori. The partnership between the Crown and iwi/hapū is required.
- Priority action 1 – Agencies must not only “improve” the management of iwi rights and interests, but they must give effect to those rights and interests as required by section 4 of the Conservation Act 1987 and the Treaty.
- Priority action 2 – The ANZBS needs to ensure that mana whenua hold key roles in the system governance structure (this must not be restricted to limited roles that do not meet the level of partnership), as well as the implementation of the ANZBS and its outcomes.
- Priority action 3 – Support needs to also be provided for training programmes led by mana whenua and current biodiversity programmes implemented by mana whenua.
- Priority action 4 – Legislation and policy need to be reviewed to ensure it ‘gives effect to’ the principles of the Treaty, not simply to recognise and provide for kaitiakitanga and mātauranga Māori.
- Priority action 5 – Needs to support Māori and iwi/hapū to engage with international conversations and agreements.

11.32 Public workshops and survey responses

Most submitters said they support this system shift. A few submitters, including some councils, said the ANZBS needs to be more explicit about what will actually be delivered through this system shift.

One submitter, for example, said it found it difficult to assess the validity of this section as there is very little information about the practice of mātauranga Māori in the public domain. For example, how have iwi, hapū and whanau been exercising mātauranga Māori on the lands and waters where they already have more influence and control, be it freehold, joint title, or Ngā Whenua Rahui.

One council highlighted that 80% of Māori live in urban areas, essentially mirroring statistics for the wider population. Urban areas are where mātauranga Māori and kaitiakitanga can be practiced in a way that is accessible to all and can support reconnection to biodiversity heritage.

11.32.1 Governance

Some submitters, including some boards and councils, said they support tangata whenua in governance roles. However, a few submitters said more clarity is needed on what a partnership model between tangata whenua and the Crown looks like.

11.32.2 Capability and capacity building

Some submitters said capability and capacity building is key and support should be provided. This includes providing funding and support; and reviewing legislation as a priority. One council said this shift should include a focus on developing Māori capacity to contribute to national, regional and local conversations; and to take actions. This should include building policy capability as well as practical conservation skills. One science submitter said environmental agencies could provide opportunities to young Māori such as mentoring, scholarships and cadetships.

One submitter said there is an action proposed to support Māori to contribute to international biodiversity conversations, but no similar action to support contributions to those conversations within New Zealand. Ensuring there are adequate resources to enable local iwi to participate in relevant projects, programmes and meetings is essential to avoid problems like consultation fatigue.

A few submitters said that councils could play a role in supporting iwi to develop management plans. One council said that where plans don't already exist, councils should be resourcing iwi to develop them.

11.32.3 Collaboration

Some submitters saw a new role for them working with Treaty partner. One conservation submitter, for example, said the nature of the partnership between the Crown and Treaty partners and the Treaty of Waitangi settlement process means the wider public has not had a chance to engage with tangata whenua.

Some submitters said support is needed to help communities develop new relationships and ways of working with Treaty partner. One conservation submitter, for example, said a lack of knowledge and understanding is currently a barrier to engagement with Māori. Provision of adequate resources for Māori to provide training and guidance in this area would be extremely useful; as would funding and support to help the community to engage.

Another conservation submitter said there is a need to find a way to integrate views in a way that honours the Treaty of Waitangi and ensures the health and persistence of our unique biota. In this submitter's view, a useful first step could be hui involving key conservation groups, government, and iwi conservation leaders, to more usefully understand how this integration could occur. This submitter added this would need to be followed by a way to win the support of the many people who are engaged in conservation initiatives across the country. In this submitter's view, the ANZBS breathes life into this opportunity and is already modelling a useful relationship.

Submitters requested that more recognition be placed on the contribution business, corporations, and large private landowners (such as farmers) have on biodiversity management.

11.32.4 Biodiversity HiveMind

Overall, almost all participants (75%) agreed that the Biodiversity Strategy should recognise the Treaty of Waitangi and the principles of partnership, protection and participation, and (78%) agreed that Te Ao Māori regarding biodiversity / the environment and science should work together as each perspective strengthens the other. Most participants (73%) agreed that a partnership between tangata whenua and the Crown should reflect aspirations for the co-management of nature, and 68% agreed that biodiversity management should recognise the value of mātauranga Māori and practical knowledge, right from planning through to monitoring success.

11.33 Q14. Innovating for the future: Do you agree with the proposed first steps? What other actions should be included?

11.34 Public workshops and survey responses

Many submitters said they support this system shift with one board noting that it will help manage climate change pressures. However, some submitters suggested the priorities are too focused on establishing better data management and research; and some submitters said this shift does not go far enough in addressing and prioritising climate change.

Some marine industry submitters said this was the most important shift as there is a significant lack of knowledge and science, as well as investment in natural resource innovation. This shift will help increase the focus on an evidence-based approach.

11.34.1 Innovation methods

There was a general sentiment that new ideas are needed, and we must find novel and fast ways to achieve this; and this doesn't always require technological change or time-consuming research.

A few councils said innovation is needed to improve how we collaborate and change behaviour. One council, for example, said the key is to not only build scientific knowledge and capability but also to engage people in biodiversity. A few areas of interest put forward by submitters in this regard include establishing a social innovation and citizen science framework, prototyping, innovation challenges (including an open mind to backyard inventions) and encouraging a range of experts to collaborate such as ecologists, software developers and product engineers.

The Predator Free movement was cited by a few submitters as a good example of the power of collaboration and prototyping. One conservation submitter, for example, said improved predator control tools are emerging through prototyping from the design and engineering community rather than research community. Approaches and delivery speed are markedly different between the two.

Another submitter said there is an opportunity to better focus resources to conservation work already being done on the ground rather than unnecessary research. New Zealand needs to get better at recycling the knowledge it has, using processes it knows works, and better integrating science and education.

A few submitters said it is important to recognise that there may already be useful innovations that we may not be aware of particularly outside of New Zealand. There are opportunities to make better connections and to see what is already out there.

One submitter said that innovation must extend to the individual level, individuals have to be able to innovate, to test new ideas, to make mistakes and to recover from them.

11.34.2 Innovation focus areas

Many submitters said climate change innovation should be a priority under this shift. One submitter said innovation must first be informed by improved understanding of the wide range of biological, ecological, technological, organisational and social processes.

Views on priority areas otherwise varied across domains, species and control methods.

One science submitter said more attention and support should be given to equal allocation of resources equally across domains.

A few submitters said we need a better picture of all species including the full range of predators, pests and browsers. One conservation submitter said the Threatened Species Classification System should be used to identify innovation priorities. Resolving data gaps is essential. Another submitter agreed that there is a need to improve our knowledge and understanding of species to see the impact they have on ecosystems.

Some plant conservation submitters said there is a need for more plant focussed innovation. One conservation submitter, for example, said New Zealand requires a seedbank for the conservation of indigenous plants. This should ideally be a purpose-built facility with long-term funding. Cryogenic germplasm storage methods should also be used to ensure South Pacific flora is able to be banked, much of which is unorthodox and cannot be simply dried and frozen like traditional seed banking. One plant conservation submitter also said ex situ conservation is an area of interest.

Some submitters, including councils, said that some methods for protecting indigenous biodiversity such as 1080 are fairly blunt and crude. Funding should be directed at innovation for more effective breakthroughs, especially in weed and pest management. A few submitters including boards, scientists and councils, made comments about genetic engineering/gene editing in this regard. One council said gene editing of invasive species warrants an informed discussion on the technology and its benefits and risks. There is no mention of this in the document but it is important to have a conversation so we can talk about how far we are willing to go for a predator-free nation. Another submitter said perceptions around the use of genetic engineering may not have kept in touch with recent advances in science. It is time to have a chat about this. A review of the science and how it relates to biodiversity could be included in the proposed first steps.

Some submitters said there is a need to focus innovation on the marine environment. One board, for example, said more research on marine mammals is needed to ensure there is adequate data to inform management and decision-making over threatened species such as Māui and Hector's Dolphins in the Golden Bay area. One industry submitter said marine pests are an area of interest.

One marine industry submitter also expressed concern about the National Science Challenges initiative under this shift indicating that Sustainable Seas represents a lost opportunity to date.

One community and recreation submitter suggested that overseas models are reviewed such as the Guatemala use of indigenous knowledge to help biodiversity, the Bhutan tourism levy, and the Hawaii marine reserve protection (a tourism free day every week for the marine environment).

11.34.3 Data commons

Many submitters said they support the development of a national data commons. One council, for example, said this will enable monitoring to be aligned and made consistent across agencies. This

will allow us to tell local, regional and national stories about change. Some conservation submitters said data could be used to monitor goals including the annual state of biodiversity and biosecurity such as predator monitoring, pest plant removal, ecological restoration and bird counts. A few boards were also interested in linkages with mātauranga Māori research.

One submitter said essential infrastructure that underpins innovation is chronically underfunded with most funding typically directed towards new and exciting projects at the cost of baseline, foundational and long-term work such as ecological monitoring, taxonomy, and the maintenance of data repositories.

A few submitters, including some councils, said establishing baselines is essential under this shift and should be brought forward as an immediate priority. One submitter said this should include using existing data to create a comprehensive picture of New Zealand's biodiversity at a national scale and identifying gaps.

A few local government submitters noted that regional councils are already developing tools to get this underway, such as online taxonomic libraries and citizen science databases.

Some submitters made comments on setting up the data commons. This should include developing robust standards, establishing independent monitoring, and making raw data and data analysis accessible to those that want to use it.

A few submitters noted challenges with creating a data commons: there are privacy challenges with data collected on private land which need to be considered; and data needs to be reliable enough to be used for decision-making in a legal context.

11.34.4 Capability and capacity

Some specific comments on innovation capability and capacity were also made.

One submitter was of the view that a review of scientific capability is more urgent than indicated in the priority actions.

A few science submitters noted that positions in areas such as ecology and taxonomy are constrained by the availability of research funding for universities and crown research institutes.

A few plant conservation submitters said the ANZBS could also play a role in supporting universities and research institutions to develop and retain important biosystematics capacity, noting this capability can take decades to develop.

11.34.5 Biodiversity HiveMind

There was strong evidence from the responses that knowledge, including western science and mātauranga Māori are critical to the restoration and survival of our biodiversity. Almost all participants (91%) agreed that biodiversity management decisions need to be informed by the best available information, and 88% agreed that monitoring and evaluation of biodiversity management is crucial to ensure activities are effective and efficient.

Almost all participants (83%) agreed that we must invest in science and technology to achieve the vision and long-term outcomes of the Biodiversity Strategy, and 78% agreed that Te Ao Māori regarding biodiversity / the environment and science should work together as each perspective strengthens the other. In particular, almost all participants (81%) agreed that funding should be given to research and promote diverse systems of farming. Most participants (70%) agreed that the biodiversity system needs more collaborative decision-making that involves all affected parties.

11.35 Q15. Overall, are these the components of an effective strategy? What do you think of the proposals as a package? Is there anything we have missed?

This question is covered in previous sections of the report.

11.36 Q16. You are invited to provide your views on global targets for biodiversity. You may wish to consider: What do you think a global vision and targets for biodiversity should look like? Are they the same as what is proposed in our national strategy, or should they be different? Are there any other things that should be included in the global framework? How do we make sure that our national strategy aligns with global goals?

11.36.1 Public workshops and survey responses

Some submitters made comments on global linkages in various sections of the discussion document such as the outcomes and goals. Many of the submitters who responded directly to this section said it is vital that the ANZBS supports and strengthens global goals, targets and timeframes under the Convention on Biological Diversity (CBD), the Sustainable Development Goals and the Paris Agreement. A few submitters felt these obligations could be made more transparent in the ANZBS. One council suggested a table is added to this section to show alignment of the ANZBS with global targets.

A few submitters noted that New Zealand will not meet its current global targets for 2020 despite those being similar goals to the ones proposed in the discussion document.

A few submitters said that as a signatory to the CBD, New Zealand should also reflect the Global Strategy for Plant Conservation (GSPC) and its targets into the ANZBS. One submitter noted that New Zealand is expected to prepare and lodge a report in 2020 on progress towards these targets. It said there is still time to prepare something more informative about plant conservation achievements since 2000, and what NZ intends to do about the future challenges.

A few submitters said the broader global context and priorities for New Zealand could also be made more transparent in the ANZBS. A few conservation submitters said there appears to be very little consideration of New Zealand's role as a global citizen; its responsibility to reduce its environmental footprint (such as reducing emissions or promoting biodiversity friendly trade); or recognition of the potential role New Zealand could play in supporting other nations to improve their resilience to climate change impacts through nature-based solutions (such as providing international aid or sharing innovation and learnings, particularly in the Pacific).

One conservation submitter, an international NGO, said it is currently developing an ambitious, science-based 'New Deal for Nature and People by 2020' that sets three major global goals with targets and pathways. These being:

- Zero loss of natural habitats
- Halve the footprint of production and consumption
- Zero extinction of species

While this submitter sees alignment between the draft ANZBS outcomes and the New Deal for Nature and People Goals, the outcomes and goals are not well aligned and there is no clear pathway of action to achieve them.

One general public submitter said obligations to protect rare and unique introduced species should also be reflected in the ANZBS.

The Biodiversity HiveMind did not include this question.

Appendix 3—Glossary

Biodiversity, Biological diversity or the variability among living organisms from all sources, including land, marine and freshwater ecosystems and the ecological complexes of which they are a part; this includes diversity within species (including genetic diversity), between species and of ecosystems (based on the definition of the Convention on Biological Diversity).

Indigenous biodiversity is the diversity (or range) of indigenous species. This includes diversity within and between species.

Indigenous species refers to species that occur naturally in Aotearoa New Zealand.

Kaitiakitanga is the obligation to nurture and care for the mauri of a taonga, or the ethic of guardianship or protection.

Mana is prestige, authority, control or personal charisma.

Mātauranga Māori, or Māori knowledge, is the body of knowledge originating from Māori ancestors. This includes the Māori world view and perspectives, Māori creativity, and cultural practices.

Mauri is the life principle, life force or vital essence.

Nature is a holistic term that encompasses the living environment (te taiao), which includes all living organisms and the ecological processes that sustain them. By this definition, people are a key part of nature.

Non-indigenous species, or introduced species, refers to species that have been brought to New Zealand by humans, whether intentionally or unintentionally.

Rangatiratanga means chieftainship, the right to exercise authority, sovereignty or self-determination.

Species means a group of living organisms consisting of similar individuals capable of freely exchanging genes or interbreeding.

Taonga refers to a treasure or something that is prized. The term can be applied to anything that is considered to be of value, including socially or culturally valuable objects, resources, phenomena, ideas and techniques.

Tikanga is a custom, practice or correct protocol. It refers to the customary system of values and practices that have developed over time and are deeply embedded in the social context.

Valued introduced species are introduced species, including sports fish, game animals and species introduced for biocontrol, which provide recreational, economic, environmental or cultural benefits to society.

Whakapapa means genealogy, genealogical table, lineage or descent.

Appendix 4—ANZBS Reference Group members

Science Reference Group

Andrea Byrom (chair)
John Leathwick
Fabrice Stephenson
Kelvin Lloyd
Amy Whitehead
Alison Greenaway
Amanda Black
Bruce Clarkson
Colin O'Donnell

Te ao Māori Reference Group

Edward Ellison (chair)
Melanie Mark-Shadbolt
Puke Timoti
Norm Hill
Te Kei Merito
Tame Malcolm
Aroha Meade

Stakeholder Reference Group

Forest and Bird
Environmental Defence Society
Federated Farmers
Forest Owners Association
Fisheries Inshore NZ
Electricity generators – Meridian and Genesis
Fish and Game
DOC representative
Youth representatives – Frances O'Connor and George Hobson

Appendix 5—Acronyms

ANZBS	Aotearoa New Zealand Biodiversity Strategy
CBD	Convention on Biological Diversity
DOC	Department of Conservation
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
MFE	Ministry for the Environment
MPA	Marine Protected Area
NGO	Non-governmental Organisation
NPS	National Policy Statement
NPSFM	National Policy Statement for Freshwater Management
NPSIB	National Policy Statement for Indigenous Biodiversity
NPSUD	National Policy Statement on Urban Development
NZBS	New Zealand Biodiversity Strategy (2000)
NZCPS	New Zealand Coastal Policy Statement
PCL	Public Conservation Land
RMA	Resource Management Act 1991
SDG	United Nation Sustainable Development Goals