

New Zealand's Biological Heritage National Science Challenge Scoping Panel Report

Strategic Outcome 7: Governance and Policy

Section 1: Creating Impact

Vision and link to the Challenge mission

Our biological heritage is at the heart of who we are and defines us as New Zealanders and mana whenua. For Māori, as Te Titiri partners, it is essential that mana whenua can exercise their sovereignty and responsibilities as kaitiakitanga over their lands. When our bioheritage is healthy and strong, our wellbeing is strong.

Our governance arrangements and policy arrangements are failing

Our current governance arrangements and policy instruments are not working and are failing Papatūānuku/Te Taiao – our biological heritage continues to decline at an ever-increasing rate.

Many of our economic and land-use policies, practices and settings are exacerbating the decline of our biological heritage by not recognising the full value of our biological heritage. Existing policies make it difficult for those closest to resources and most affected by the decline in our biological heritage to have their knowledge and values recognised and to participate in the decisions that affect it - at strategic and local levels.

Participatory governance of our biological heritage - a not so new paradigm...

There is a growing experience internationally – for example from southern and west Africa, South America – that a participative governance structure based on devolving power, decision-making and responsibility can deliver more sustainable and effective outcomes for natural resource management, including biodiversity.

We believe that Te Ao Māori and the values of the broader community, align with greater protection of our bioheritage and biosecurity.

It is our proposition that a participatory approach to biological heritage governance and decision-making that involves mana whenua and local communities will be more successful than a structure that centralises power, decision-making and responsibility.

We consider that such a devolved model is also less susceptible to capture by those that gain from damaging/destroying our biological heritage.

Opportunity to act

There is a window of opportunity to act now. We are seeing the green shoots of new participatory approaches to managing our biological heritage starting to make a difference at local and regional levels. These are emerging as Aotearoa New Zealand moves into a post settlement world of greater partnership between iwi and the Crown.

There are also new opportunities emerging for the alignment of statutory and non-regulatory approaches and systems including reviews of the Resource Management and Biosecurity Acts, the New Zealand Biodiversity Strategy and the National Policy Statement for Indigenous biodiversity.

The opportunity is to act NOW!



These approaches must build on the lessons and experiences of co-design and co-governance from the likes of Te Urewera and Te Awa Tupua, emerging corporate/iwi/community partnerships (e.g. Tauranga Moana biosecurity programme), and the Predator Free 2050 grassroots initiatives. However, the potential to realise the benefits of these are being frustrated and constrained.

We have Māori advocating for the environment and trying to protect biodiversity in many areas but lacking the resources to engage fully as a Treaty partner. "For Māori specifically, their worldview will have little context if the lands become mostly devoid of original flora and fauna" - Waitangi Tribunal 2011.

At the same time we have parts, and levels, of government making decisions that impact on biological heritage with little or no national coordination and cooperation.

We have many parts of the community wanting to make a difference but are not empowered to do so – whether through having the necessary institutional arrangements, capacity, policies and legislation, or the knowledge and capability to act.

We need to break the current governance mould and build the systems, policies and capability to take advantage of these opportunities – at the heart of this is the need to empower mana whenua as Treaty partners, establish new governance architecture and instruments that puts biological heritage at the centre, and builds the capability of all New Zealanders to contribute to reversing the decline in our biological heritage.

The Challenge for Strategic Outcome 7

In particular, the Biological Heritage National Science Challenge (BHNSC) has the opportunity to make a key contribution to the *alignment* of the natural resource *system* review and provide a transformational *research focus* on leadership models, policy development, system co-design principles, and implementation across Aotearoa New Zealand. Our research priorities for the next five years are to support the achievement of the following goals for the development of biological heritage governance and policy environment:

1. Mana whenua are enabled and resourced to participate as a Treaty partner.
2. Design a new governance architecture for biological heritage resilience that delivers:
 - Te Tiriti-based governance of natural resources grounded in tikanga and mātauranga Māori.
 - A national leadership 'model' to champion biological heritage resilience.
 - Greater policy integration and agency coordination.
 - Effective regulatory and non-regulatory frameworks to protect and restore biodiversity.

- A range of new funding arrangements and support mechanisms.
 - Enhanced understanding and identification of opportunities for better alignment of incentives (including price signals).
 - Appropriate inclusive participatory approaches.
3. Lift and sustain capability to reverse the decline in bioheritage.

“If you had told me 15 years ago that Parliament would almost unanimously be able to agree to this bill, I would have said “You’re dreaming mate”. It has been a real journey for New Zealand, iwi, and Parliament to get used to the idea that Māori are perfectly capable of conserving New Zealand treasures at least as well as Pākehā and departments of State.”

Nick Smith, Third Reading, Tūhoe Claims Settlement, Te Urewera Bill, 2014

Beneficiaries

Our aspiration is that Papatūānuku will be the principal beneficiary through Te Taiao being restored to full health thereby supporting the fundamental wellbeing of the entire nation.

Aotearoa New Zealand, New Zealanders and Māori, will benefit by mana whenua being empowered to fully exercise their rights and responsibilities of kaitiakitanga in accordance with Te Tiriti, and incorporation of mātauranga Māori and tikanga into bioheritage conservation practises.

Research Institutions, researchers, knowledge system practitioners and experts will work collaboratively with iwi/hapū, communities and other decision-makers to build and apply their knowledge and research to deliver sustainable real-world solutions to biological heritage conservation challenges.

Children and young people will be inspired and enabled to be leaders and champions for reversing the decline in our biological heritage.

Educational and training institutions will deliver the education and training that mana whenua, the community, resource managers and decision-makers really need.

Our ultimate aspiration is that future generations will inherit a country with thriving bioheritage

The Crown and its agents – Parliament, Government, Ministers, Agencies and local government – will benefit by having the institutions and tools that allow them to more effectively govern and manage New Zealand’s bioheritage in collaboration and partnership with Māori, local communities, landowners and resources users.

Decision-makers, resource managers and practitioners, iwi/hapū and local communities will have the appropriate knowledge and capability, and systems in which, to make decisions that deliver lasting/sustained impact

Delivery pathways

Co-innovation and co-design are the essential tools for delivering the governance and policy instruments necessary for the change required to reverse the decline in our biological heritage.

The change required involves a fundamental shift in thinking about leadership and governance. The traditional Western governance systems that have been used in Aotearoa New Zealand for over 150 years have stifled innovation in biological heritage conservation, arguably accelerating its decline. In particular it has constrained, through a combination of inertia and reluctance of the Crown to give up control, the opportunity for a more dynamic multi-faceted evolutionary approach to be developed

which reflects the complexity of socio-ecological systems. It has also suppressed the inclusion of alternative views and knowledge systems such as Te Ao Māori and mātauranga Māori in finding and delivering solutions to its decline.

A co-design approach will allow Te Ao Māori and other views and interests to be properly given effect in the governance of Aotearoa New Zealand's biological heritage. However, it also takes investment in time, people, and commitment from all levels of society.

Such a fundamental change in leadership and governance needs strong and dependable evidence and information to convince those in a position to bring about the size and scale of change proposed. It is equally critical that this information is also available and accessible to those tasked with implementing the change.

Our proposal sets out a portfolio of research activities to strengthen the evidence base, presented in a coherent form, to inform the various statutory and non-statutory system/governance/policy reviews that are underway, through the following principal delivery pathways:

Substantive engagement with **iwi leadership structures** from the start of the co-design process to give confidence and support to mana whenua to:

- Exercise authority over their own resources but collectively to give voice to the collective values of Te Ao Māori.
- Convene a **national leadership forum for biological heritage**. This will be a 'living forum' in that it will be both an event (and series of events) and a process – like constitutional conferences used in countries when fundamentally revising their constitution. It will bring together mana whenua, politicians, business people, communities, young people and others to present, debate, and agree on the design of new governance and strategic policy direction for ensuring the long term health and resilience Aotearoa New Zealand's biological heritage.

The launch of the New Zealand Biodiversity Strategy by the Department of Conservation (DOC) in 2020 provides a timely opportunity for the BHNSC to partner with mana whenua and Crown (through the agency of DOC) to initiate the national leadership forum.

- **Leverage** existing structures, initiatives and current regulatory and policy reform processes to deliver changes sooner rather than later. It is not necessary, and indeed not realistic, to wait for the perfect governance and policy framework to make some of the changes necessary to deliver improved biological heritage resilience.

Engaging and influencing **Te Pae Tawhiti** – the Government's proposal for a whole-of-government approach to address the recommendations of the Wai 262 Waitangi Tribunal claim¹ – will be a particularly important/critical pathway for advancing all three of our goals. In addition, encouraging attention to extend from Wai 262 to the Freshwater Report (Wai 2358) will also be critical, in particular for enabling and resourcing mana whenua to participate as a partner in the governance and management of Aotearoa New Zealand's biological heritage.

The update of the New Zealand Biodiversity Strategy, the current reviews of the Resource Management and Biosecurity Acts, the ongoing development of the National Policy Statement on Indigenous Biodiversity and implementation of the Biosecurity 2025 Strategic Direction Statement all provide

¹ Te tino rangatiratanga o te Iwi Māori in respect of indigenous flora and fauna me ō rātou taonga katoa (and all their treasures) including but not limited to mātauranga, whakairo, wāhi tapu, biodiversity, genetics, Māori symbols and designs and their use and development and associated indigenous cultural and customary heritage rights in relation to such taonga.

important avenues available right now to get the changes in policy and legislation necessary to support a new approach to biological heritage conservation.

- Identifying and supporting **Bioheritage Champions** to promote the importance of our biological heritage, the need for change, and what's needed to achieve it – whether it is a national decision-maker, on a marae, government department, local community, private business or a student.
- Sustained **engagement and communication** through hui, seminars and workshops, kanohi-ki-te-kanohi, and use of all forms of media.
- Engaging with **education and training sectors** to ensure Aotearoa New Zealand's education and training systems – formal and informal – effectively develop the knowledge and build the capability of all New Zealanders to be effective actors in the conservation of our biological heritage.

This will involve establishing better connections between policy makers, educators and trainers with different parts of the community to understand and deliver programmes and resources needed for them to play an effective role in biological heritage conservation. Be this for a community-based project, regional council biodiversity managers, rangatahi, natural resource managers (e.g. hapū, farmers, foresters), or national decision-makers.

Key to this will be:

- Engaging in the roll out of the Review of Vocational Education (RoVE) – in particular, exploring the opportunity to establish a Centre for Biological Heritage Excellence in the new National Polytechnic.
- Development of new bioheritage focused micro-credentials, qualifications, programmes, apprenticeships.
- Engaging in other current education reform initiatives (e.g. NCEA and New Zealand Curriculum reviews and resets).
- Encouraging local communities, marae and businesses to work directly with schools and kura kaupapa.

The delivery pathways for developing and implementing new governance and policy instruments that enable people to build biological heritage resilience will need to work side by side at different levels and speeds.

It will be critical for the success of the co-design and development processes to periodically check in on progress towards achieving the vision and goals. This adaptive approach will ensure that any lessons learnt and emerging information can be taken into account to build a governance framework that delivers the best possible outcomes for our biological heritage

Risk

There appears to be a growing and broader acceptance that current policies and practices are not helping to halt the decline in Aotearoa New Zealand's biological heritage, and that something must change. However, the ability to make the significant changes in governance and develop the policy instruments needed to address this challenge is significantly constrained by a number of fundamental issues and attitudes which, if not overcome, will prevent the realisation of our vision.

- **Political inertia** underpinned by inherent resistance to change and risk averseness embedded in the political and bureaucratic establishments. A significant element of change will involve

realising the knowledge, skills and relationships of those who have been traditionally excluded from decision-making.

New Zealand politicians and decision-makers at national and local level are undoubtedly committed to delivering positive outcomes. Good policy can also at times be rendered ineffective by events or circumstances. However, the current political governance system does not sit comfortably with co-governance concepts; rather policy and legislation-making is typically technocratic, adversarial in development and susceptible to three-year electoral cycles. This results in a competing mix of ideology, the urgent, and loudest voice, and responding to the latest polls.

However, experience over the last 25 years, as seen in the introduction of MMP and evolving partnership with Māori through the treaty settlement process, suggest there is increasing acceptance of conversation rather than debate, and collaboration rather than division as a means of sustained transformational social, economic and environmental change.

This is further reinforced by a shift globally, and more recently locally, to using a wider set of parameters to incorporate concepts of wellbeing into economic and political decision-making processes which has resulted in environment and sustainability matters being recognised as important as economic and financial considerations

- An underlying **traditional view** that the tools are ok (with a few tweaks) and all that we need is more money, people, resources with the help of corporate and philanthropic support. The reality is that the scale of the challenge and political priorities will mean that these resources will remain insufficient without changes to the governance arrangement and the underlying regulatory and policy to support innovative decision-making and investment in our biological heritage. Arrangements that empower land managers to protect and enhance our biological heritage in the absence of regulation can scale and accelerate efforts to 'reverse the decline'.
- **Lack of urgency.** Although a sense of pending doom exists, we are not yet on the cusp of the watershed moment that climate change finally appears to have. Indeed it is possible that the significant progress that has been made with local initiatives over the last few decades – enclosed predator free zones, success of community predator free groups, biodiversity bouncing back as a result of intensification of the use of aerial 1080, etc – are encouraging a false sense of security about what is possible without significant change.

No matter how successful these initiatives have been at local level, they are more 'testbeds for ideas' than the solutions in their own right; in effect stepping-stones along the pathway to reversing the decline. They have involved considerable investment of money, time, people to implement and maintain which cannot be sustained in the step up to landscape scale without a transformation change in governance and policy instruments.

- **Resistance** to the need to enhance the role and participation of Māori in governance and decision-making of our biological heritage
- **Insufficient capability and capacity** of mana whenua, local communities and councils to participate and deliver the scale of change needed.
- **Competing priorities** for limited funds – both government and the private sector needs a compelling message that commands attention and can sustain support over time

Communications and relationship management

We need the New Zealand public to buy our message – a message for everyone from Ministers to children. The proposed new model requires significant involvement of parts of Aotearoa New Zealand society to get traction.

In the first instance it will be important to engage and obtain the confidence of formal and informal leaders of Māoridom. Similarly, it will be important to involve Ministers whose portfolios have material relevance to BioHeritage – beyond the traditional conservation and environmental management portfolios – while also establishing links with New Zealand’s political leadership – of all parties.

The local:national relationship needs to be strengthened and built on beyond the current bureaucratic arrangements between leadership of government agencies and councils (CEEF) to include mana whenua, community organisations, research providers, and local businesses and land managers (especially resource managers). Better vehicles for bringing these parties together at the regional level will need to be built – to communicate issues, problem solve, share experience and expertise to deliver impacts at local and regional levels.

Research and educational providers need to develop relationships and communication channels to ensure their activities and programmes map to the needs and expectations across this political institutional relationship matrix. Their role will be particularly important for building the evidence base for change/building and sustaining the social and cultural licence and mandate to change.

It will be necessary to use a mix of existing and new communication channels. This will include leveraging and building on existing structures such as the Iwi Chairs’ Forum, Chief Executives Environmental Forum, Ngā Pae o te Māramatanga, Centre of Research Excellence, Regional Councils Biosecurity Managers Policy Group, Conservation Authorities, Parliamentary Commissioner for the Environment, etc.

New channels will need to be built which over time will become more ‘fit for purpose’ than these existing structures such as the National Leadership Forum (and supporting processes and structures) and the Academy of Excellence for Biological Heritage education.

A more structured and sustained programme of communications using multiple mediums will need to be established – policy briefings and green papers, mainstream and social media, storytelling, hui and marae visits, workshops and seminars.

It is also critical to ensure there is strong and ongoing cross engagement between the different BioHeritage Strategic Outcome streams. There is particularly close alignment with SO 1 Biological Scorecard, SO2 Environmental Stewardship, and SO6 Ecosystem Interdependencies. Implementation of, and investment in, the three programmes will need to be closely coordinated.

Section 2: Incentivising Investment

Essential activities

Changing governance and policy arrangements is difficult and usually a process occurring over decades. For this reason we have focused our attention for activities on areas where we believe change will spark further evolution of governance and policy practices in the direction of our vision.

For example, one of the essential activities which will contribute to the resourcing of mana whenua as a Treaty partner is the translation for politicians of Waitangi Tribunal recommendations – particularly in the Ko Aotearoa Tēnei (Wai 262) and Freshwater Report (Wai 2358), and then their subsequent adoption.

These activities require underlying analysis, research and/or basic stocktakes. This could be to build/strengthen the evidence base (alternative governance systems, tools for recognising non-market

values), identify and address gaps (capability needs, new training methodologies, curricula content), or identify new ways to apply knowledge differently (e.g. through social research, adopting and incorporating different knowledge systems into governance and policy development).

The challenge of the BHNSC is that although its focus needs to be on identifying, supporting and facilitating research in biological heritage, when it comes to the enactment of the science – particularly in the space of governance and policy making – it has a less obvious mandate or opportunity for driving its uptake.

The Challenge's focus on partnership and collaboration, however, does provide it with a vehicle to influence the change we consider necessary – both directly and indirectly. In addition to building the evidence base for change, it needs to work with existing partners and new partners to ensure the outcomes of the research fall on fertile ground and are used.

In particular, the Challenge will need to take a leadership role in advocating the non-research platforms and initiatives, such as the National Forum and Bioheritage Champions, as well as ensuring the information generated from research reach the critical audiences.

As part of this, it will be important that the Challenge work with government and others to develop and deliver a compelling message for the need for action to build and sustain the commitment of decision-makers and critical partners (including funders) in the face of multiple competing priorities.

	Discovery (New knowledge)	Invention (new approaches)	Innovation (new ways of doing things)	Translation (more people have the required tools)	Adoption and scale out (Landscape scale intervention)
Mana whenua (MW) are enabled and resourced	<p>Identify the barriers and enablers for MW participation in governance.</p> <p>Review existing and novel funding mechanisms for participation in decision-making.</p>	<p>Co-develop a suite of funding models for MW participation in governance and policy development and implementation.</p>	<p>Co-develop partnership models with business to enhance biodiversity (both onsite and in rohe).</p> <p>Co-develop scalable, biodiversity enhancing social enterprise models.</p>	<p>Co-develop processes for developing effective MW partnerships in biodiversity governance and decision-making.</p> <p>Translate biodiversity and governance-related Waitangi Tribunal findings for policy makers and politicians.</p>	<p>Waitangi Tribunal recommendations, particularly from Wai262 and Wai2358 being drafted into policy and RMA amendments.</p>
New governance architecture for biological heritage resilience	<p>Critical review of effectiveness of current governance systems, regulatory frameworks and policy levers that impact biodiversity, including Treaty partnerships.</p> <p>International review of national and regional-level governance models for managing natural resources and biodiversity to assess effectiveness and identify best practice/process.</p>	<p>Co-develop legal mechanism(s) to give voice to nature (including review of effectiveness, process and implementation challenges of existing mechanisms).</p> <p>Design and test novel land manager-focused economic incentives that recognise the value of biodiversity (land manager includes</p>	<p>Convene a national forum of key players to identify implementation processes for proposed new governance architecture.</p> <p>Co-develop implementation pathway to move to new governance architecture.</p> <p>Partner with industry initiatives to develop sustainable financial business models (e.g. Aotearoa Circle).</p>		

	Discovery (New knowledge)	Invention (new approaches)	Innovation (new ways of doing things)	Translation (more people have the required tools)	Adoption and scale out (Landscape scale intervention)
	<p>Identify legal and institutional barriers to governance reform for biodiversity management in New Zealand.</p> <p>Critical review of existing national and regional misaligned policies and policy direction(s) that affects NZ's biological heritage, and opportunities that may exist within existing policies to further enhance biodiversity.</p>	<p>business, farmers, individuals and regional councils).</p> <p>Co-design and scenario-test alternative governance models/architecture for New Zealand's biological heritage.</p>			
Lift and sustain capability	<p>Identify what professional and operational roles are key for enhancing biodiversity and new governance architecture. Review capability deficiencies within these roles.</p>	<p>Co-develop alternative approaches and/or models to build capability inside and outside of formal education institutions to enhance biodiversity knowledge and practice across society, e.g. experiential</p>	<p>Build transdisciplinary research practice and experience to jointly address the ecological, social, economic and cultural dimensions of biological heritage resilience.</p>	<p>Update and/or design curriculum with key institutions (such as National Polytechnic) to address the capability deficits identified in the discovery stage. Including but not limited to qualifications,</p>	<p>Establish a National Academy of Excellence for Bioheritage in the National Polytechnic.</p> <p>Develop internship programmes for young people, including rangatahi, in organisations (community, industry, iwi/hapū, research institutes, universities and museums, government)</p>

	Discovery (New knowledge)	Invention (new approaches)	Innovation (new ways of doing things)	Translation (more people have the required tools)	Adoption and scale out (Landscape scale intervention)
	Review state of, and barriers to, intergenerational knowledge transfer for the whenua, and potential approaches to enhance knowledge transfer.	learning, internships, training partnerships, training the trainer.		programmes, micro credentials on the New Zealand Qualifications Framework, National Certificate in Educational Assessment.	studying or managing biodiversity.
Monitoring	Monitor and evaluate progress against baseline.	Monitor and evaluate progress against baseline.	Monitor and evaluate progress against baseline.	Monitor and evaluate progress against baseline.	Monitor and evaluate progress against baseline.

Essential partnerships and relationships

A clear commitment by politicians to the national conversation is essential. A key first step will be to encourage and foster the establishment of regular meetings of Bioheritage Ministers (Conservation, Environment, Economic Development, Regional Development, Biosecurity, Agriculture, Fisheries, Forestry, Business Enterprise, Crown Māori Relations, Education) to set and promote the direction for a new approach to the governance of our biological heritage. Although informal, given the breadth of portfolios and issues that need to be considered, ultimately there would be potential for this to become a 'Cabinet Committee' that was tasked with maintaining a strategic, Government level overview of Aotearoa New Zealand's biological heritage.

This should be complemented by a non-partisan, cross party grouping (for example GLOBE New Zealand, a cross-party working group that involves MPs from all parties) to drive a more collaborative approach to biological heritage management. This grouping could lead the engagement with iwi leadership groupings, industry, local government and civil society groups to ultimately co-convene the National Leadership Forum for Biological Heritage.

In parallel it will be important for government agencies to step beyond the current 'agency only' Natural Resource Sector grouping to engage with councils, CRIs, industry and iwi. Although this has happened historically – formalised sub-groupings and meetings have been where conversations take place – ultimately decisions and actions remained in the hands of agencies.

There is however, increasing evidence of formal and informal collaborations and partnerships to deliver different aspects of biological heritage action. These include industry-government partnerships through the Biosecurity Act 'Government-Industry Agreements', regional level biosecurity collaborations between government, council, industry and iwi such as Tauranga Moana, and Cape to City programme which involves iwi, council, local communities, farmers and philanthropists to deliver landscape level biological heritage outcomes

Each of these collaborations have involved different levels of decision-making and collaborative resourcing – whether in funds, research, resources or people.

Novel relationships also need to be built with the financial sector. There is a fast-developing awareness within New Zealand businesses and investors of the importance (including the value to their own interests) of the need to responsibly invest in more sustainable, environmentally and socially beneficial business activities. However, there is a critical absence of key information, including on biological heritage, that the sectors need to build robust investment strategies and plans. This presents a significant opportunity for the Challenge.

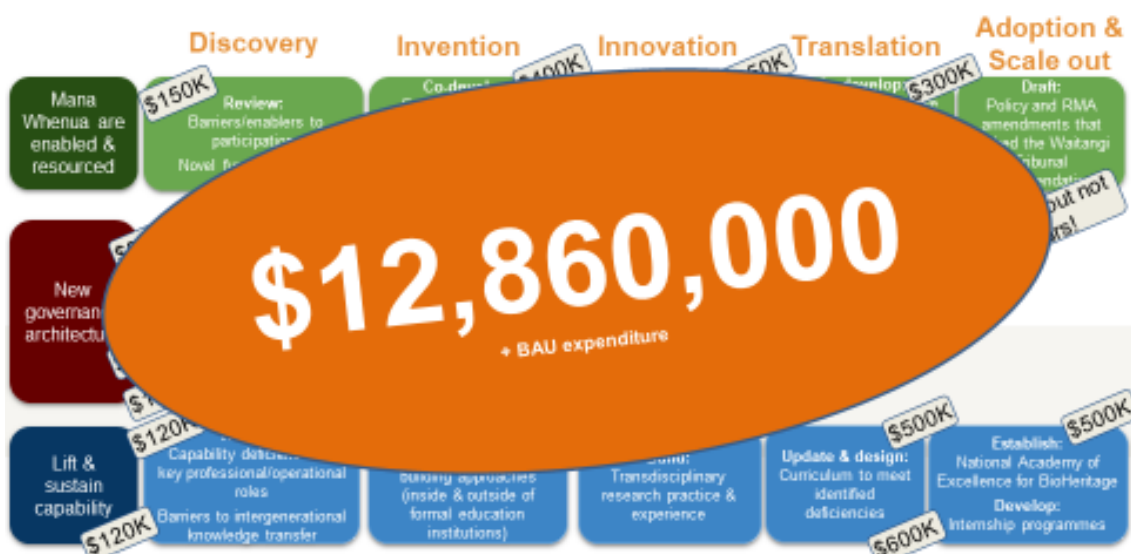
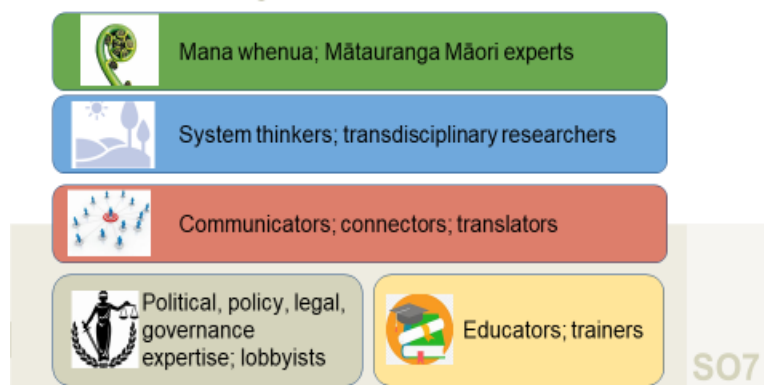
Essential Resources

The evidence base for different workstreams associated with the SO7 Goals needs to be built – whether through the various needs analyses, stocktakes, pilots, or reviews, but the most critical element to achieving the outcome is to sustain the commitment to, and participation in, a national/local/marae conversation over several years. It also requires a commitment to act.

- We need the sustained support and participation of our politicians, Māori leadership, corporate leaders and communities.
- This will require identification and support of champions – Māori and non-Māori – over this period to promote the message.

- We need the facilitators that continue the work behind the scenes to make things happen, keep essential relationships alive, to respond and provide resources to champions, to feed the ideas and the progress.
- We need to embrace Te Ao Māori, mātauranga Māori, tikanga and support mana whenua in their kaitiakitanga of Aotearoa.
- We must ensure that our biological heritage system has the capacity to value a range of knowledge systems.
- We need new regulatory and policy instruments that enable a more collaborative participatory system to work.
- We need people – the community to participate.
- We need true partnerships and collaboration between and across all participants.
- We need money – for the research and policy development, but also to sustain the conversation – workshops, hui, national conference, pilots.
- We need a new generation of policy practitioners with the ability to integrate biodiversity alongside all resource management decisions.

Capability Needs



Budget details and cost narrative

Item	2020	2021	2022	2023	2024	Totals
Essential Activities[1]						
Discovery[2]	1,070,000					\$1,070,000
Co-design initiatives	525,000	1,050,000	525,000			\$2,100,000
Innovation	675,000	660,000	285,000	110,000	50,000	\$1,780,000
Translation	625,000	525,000				\$1,150,000
Adoption and scale out	450,000	450,000	200,000			\$1,100,000
Subtotal	3,020,000	2,360,000	1,010,000	110,000	50,000	\$7,200,000
Manawhenua Resourcing[3]						
Meetings	56,000	56,000	56,000	56,000	56,000	280,000
Mana whenua Champions	125,000	125,000	125,000	125,000	125,000	625,000

Budget details and cost narrative						
Item	2020	2021	2022	2023	2024	Totals
Subtotal	181,000	181,000	181,000	181,000	181,000	\$905,000
Sector Champions (including Community Champion) [3]						
Direct	225,000	225,000	225,000	225,000	225,000	\$1,125,000
In kind contribution	75,000	75,000	75,000	75,000	75,000	\$375,000
Subtotal	300,000	300,000	300,000	300,000	300,000	\$1,500,000
Oversight and professional support [3]						
Governance and Policy Steering Group	56,000	56,000	56,000	56,000	56,000	280,000
Science expertise	150,000	150,000	150,000	150,000	150,000	\$750,000
Post Docs	100,000	100,000	100,000	100,000	100,000	\$500,000
Subtotal	306,000	306,000	306,000	306,000	306,000	\$1,530,000

Budget details and cost narrative						
Item	2020	2021	2022	2023	2024	Totals
Administration and management [3]						
Manager (0.6)	120,000	120,000	120,000	120,000	120,000	600,000
Administrator	100,000	100,000	100,000	100,000	100,000	\$500,000
Travel, Meeting Costs, Software etc.,	50,000	50,000	50,000	50,000	50,000	\$250,000
Communications	75,000	75,000	75,000	75,000	75,000	\$375,000
Subtotal	345,000	345,000	345,000	345,000	345,000	\$1,725,000
OVERALL COST	4,152,000	4,142,000	2,142,000	1,242,000	1,182,000	12,860,000

[1] Estimates include direct contributions from partners, with the exception of BAU costs for government, industry, and research institutions' participation in the National Forum, and the delivery of Translation and Adoption and Scale out activities (see Appendix One for individual activity estimates).

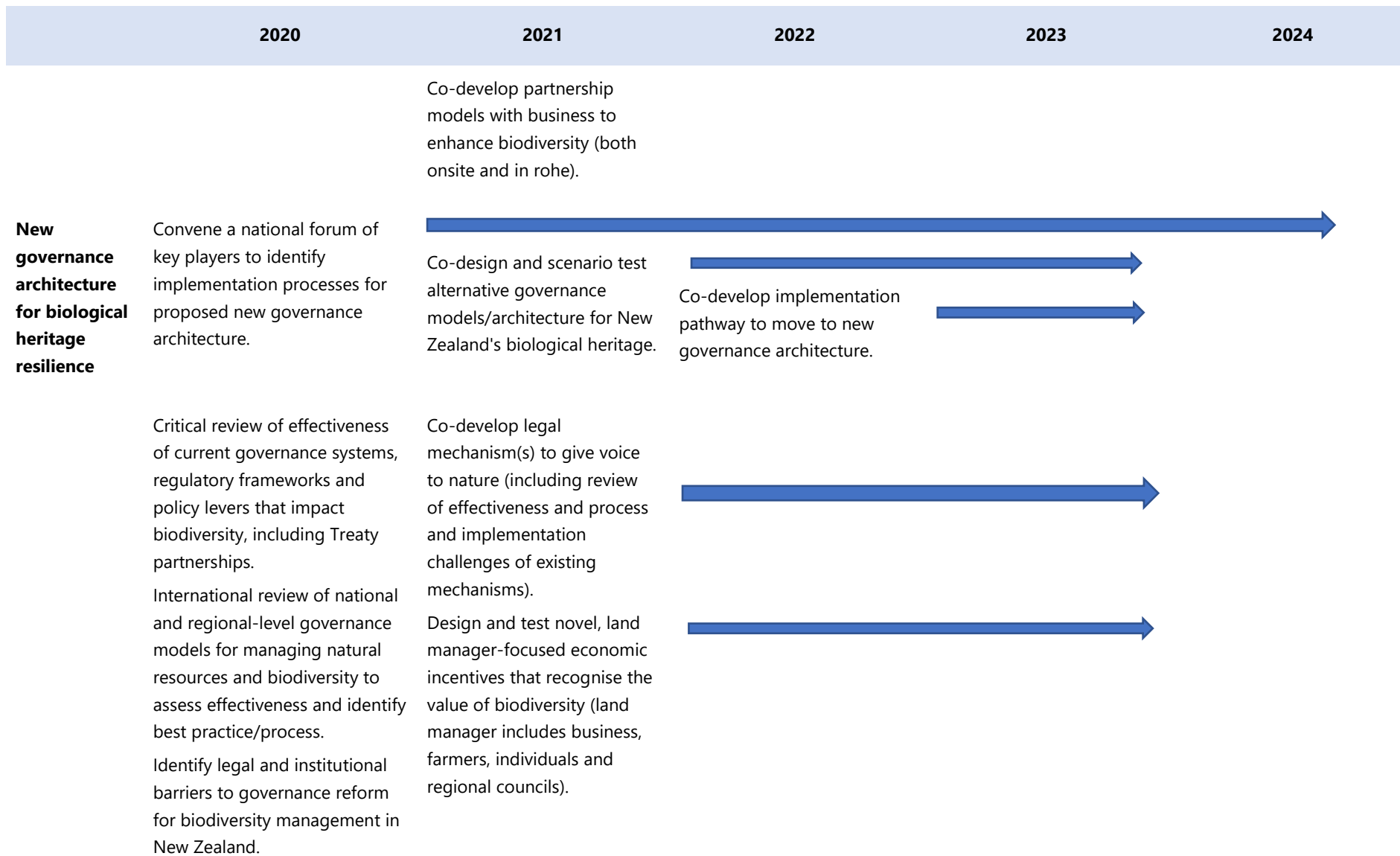
[2] Some of the Discovery costs may duplicate activities identified in SO1, SO2, and SO6 (for example valuation of ecosystem services) with potential for sharing costs.

[3] Mana whenua resourcing costs, Sector Champions, Oversight and Professional Support, and Administration and Management costs adopted/adapted from SO1 – opportunity for consolidation and sharing of responsibilities and costs across SO activities.

Section 4: Evaluating Success

Indicative activity timeframe

	2020	2021	2022	2023	2024
Mana whenua (MW) are enabled and resourced	Translate biodiversity and governance-related Waitangi Tribunal findings for policy makers and politicians.	Waitangi Tribunal recommendations, particularly from Wai262 and Wai2358 being drafted into policy and RMA amendments.			
	Identify the barriers and enablers for MW participation in governance.	Co-develop processes for developing effective MW partnerships in biodiversity governance and decision-making.			
	Review existing and novel funding mechanisms for participation in decision-making.	Co-develop a suite of funding models for MW participation in governance and policy development and implementation.			
		Co-develop scalable, biodiversity enhancing social enterprise models.			



	2020	2021	2022	2023	2024
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Critical review of existing national and regional misaligned policies and policy direction(s) that affect NZ's biological heritage, and opportunities that may exist within existing policies to further enhance biodiversity.

Partner with industry initiatives to develop sustainable financial business models (e.g. Aotearoa Circle).



Lift and sustain capability

Identify what professional and operational roles are key for enhancing biodiversity and new governance architecture. Review capability deficiencies within these roles.

Review state of and barriers to intergenerational knowledge transfer for the whenua, and potential approaches to enhance knowledge transfer.

Update and/or design curriculum with key institutions (such as National Polytechnic) to address the capability deficits

Co-develop alternative approaches and/or models to build capability inside and outside of formal education institutions. This will aim to enhance biodiversity knowledge and practice across society, e.g. experiential learning, internships, training partnerships, training the trainer.



	2020	2021	2022	2023	2024
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identified in the discovery stage, including but not limited to qualifications, programmes, micro credentials on the New Zealand Qualifications Framework, National Certificate in Educational Assessment.

Establish a National Academy of Excellence for Bioheritage in the National Polytechnic

Build transdisciplinary research practice and experience to jointly address the ecological, social, economic and cultural dimensions of biological heritage resilience.



Develop internship programmes for young people, including rangatahi, in organisations (community, industry, iwi/hapū, research institutes, universities and museums, government) studying or managing biodiversity.



Monitoring

Establish measurement system (SO 1).

Monitor and evaluate progress against baseline.



2024 Goal Metrics

Mana whenua are enabled and resourced	New governance architecture for biological heritage resilience	Lift and sustain capability
Waitangi Tribunal Freshwater 2358 & Wai262 recommendations adopted / implemented.	National Leadership forum convened. Increased levels of co-investment from traditional and non-traditional sources (e.g. corporate, community, CRI) into research and in the governance of biological heritage.	Needs identified. Pathways mapped.
Funding working group established. Funding working group recommendations adopted.	Review of collaborative governance models reviewed. Pilots of new governance approaches to biological undertaken and evaluated.	Communications plan created based on research results.
Fewer urgent claims to the Waitangi Tribunal Re: ToW breaches.	Revised plans to reflect research findings.	Research commissioned.
Mana whenua report satisfaction.	Uptake of new models for governance and management of biological heritage. Regulatory reform (Biosecurity, Resource Management Act) incorporates obligations for collaborative governance of biological heritage. Commitment by all political parties to the establishment of a comprehensive biological heritage regulatory framework underpinned by Te Tiriti partnership and principles of collaborative governance and management.	Centre of Excellence for Biological Heritage Training established. Biological heritage teaching packs developed. Micro-credentials developed and ready to deliver. Number of people credentialed.

Goal	Discovery (new knowledge)	Invention (new approaches)	Innovation (new ways of doing things)	Translation (more people have the required tools)	Adoption and scale out (landscape scale intervention)
<p>Mana whenua (MW) are enabled and resourced</p>	<p>Identify the barriers and enablers for MW participation in governance (150k).</p> <p>Review existing and novel funding mechanisms for participation in decision-making (150k).</p>	<p>Co-develop a suite of funding models for MW participation in governance and policy development and implementation (400k).</p>	<p>Co-develop partnership models with business to enhance biodiversity (both onsite and in rohe) (350k).</p> <p>Co-develop scalable biodiversity enhancing social enterprise models (350k).</p>	<p>Co-develop processes for developing effective MW partnerships in biodiversity governance and decision-making (350k).</p> <p>Translate biodiversity and governance-related Waitangi Tribunal findings for policy makers and politicians (300k).</p>	<p>Waitangi Tribunal recommendations, particularly from Wai262 and Wai 2358 being drafted into policy and RMA amendments (in kind).</p>
<p>New governance architecture for biological heritage resilience</p>	<p>Critical review of effectiveness of current governance systems, regulatory frameworks and policy levers that impact biodiversity, including Treaty partnerships (250k).</p> <p>International review of national and regional-level governance models for managing natural resources and biodiversity to assess effectiveness and identify best practice/process (80k).</p>	<p>Co-develop legal mechanism(s) to give voice to nature (including review of effectiveness and process and implementation challenges of existing mechanisms) (300k).</p> <p>Design and test novel land manager-focused economic incentives that recognise the value of biodiversity (land manager includes business, farmers, individuals and regional councils) (750k).</p>	<p>Convene a national forum of key players to identify implementation processes for proposed new governance architecture. (380k – 200, 60, 60, 60).</p> <p>Co-develop implementation pathway to move to new governance architecture. (200k – 100, 50, 50).</p> <p>Partner with industry initiatives to develop sustainable financial business models (e.g. Aotearoa Circle) (250k).</p>		

	<p>Identify legal and institutional barriers to governance reform for biodiversity management in New Zealand (80k).</p> <p>Critical review of existing national and regional misaligned policies and policy direction(s) that affects NZ's biological heritage, and opportunities that may exist within existing policies to further enhance biodiversity (120k).</p>	<p>Co-design and scenario test alternative governance models/architecture for New Zealand's biological heritage (300k).</p>			
<p>Lift and sustain capability</p>	<p>Identify what professional and operational roles are key for enhancing biodiversity and new governance architecture. Review capability deficiencies within these roles (120k).</p> <p>Review state of and barriers to intergenerational knowledge transfer for the whenua, and potential approaches to enhance knowledge transfer (120 k).</p>	<p>Co-develop alternative approaches and/or models to build capability inside and outside of formal education institutions to enhance biodiversity knowledge and practice across society, e.g. experiential learning, internships, training partnerships, training the trainer (350k).</p>	<p>Build transdisciplinary research practice and experience to jointly address the ecological, social, economic and cultural dimensions of biological heritage resilience (250k – 125, 125). Link to SO6.</p>	<p>Update and/or design curriculum with key institutions (such as National Polytechnic) to address the capability deficits identified in the discovery stage, including but not limited to qualifications, programmes, micro credentials on the New Zealand Qualifications Framework, National Certificate in Educational Assessment (500k).</p>	<p>Establish a National Academy of Excellence for Bioheritage in the National Polytechnic (500k)*</p> <p>Develop internship programmes for young people, including rangatahi, in organisations (community, industry, iwi/hapū, research institutes, universities and museums, government) studying or managing biodiversity (600k).</p>

Monitoring	Establish measurement system (SO 1)	Monitor and evaluate progress against baseline	Monitor and evaluate progress against baseline	Monitor and evaluate progress against baseline	Monitor and evaluate progress against baseline
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SO6 Design Team

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