



Indigenous Biodiscovery: Engaging with Kaitiaki

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Introduction

This policy brief is designed to support researchers and commercial entities to undertake fair, equitable and culturally grounded biodiscovery with Indigenous biological and genetic resources in Aotearoa New Zealand, while remaining adaptable for international application.

In the absence of a regulatory framework and formal guidance, there is limited guidance and few legal requirements for researchers and companies to engage with kaitiaki when undertaking biodiscovery activities. This paper, therefore, explores kaitiaki relationships with taonga species and mātauranga Māori, including who has authority and interests, why it is important to recognise these relationships, and clarifies when engagement with kaitiaki should occur at each stage of the research and innovation lifecycle, with supporting principles to guide fair, equitable, and trusting engagement.

Who has authority and interests in Indigenous biodiscovery activities?

Engagement should begin with everyone who may hold rights, responsibilities, interests, or relationships in relation to taonga species and mātauranga Māori. This includes iwi, hapū, marae, whenua Māori entities, taonga governance entities, whānau, and other relevant Indigenous organisations and communities who hold significant relationships with taonga species through whakapapa and mātauranga Māori association, use and development.ⁱ Where there is uncertainty about who the relevant kaitiaki are, emerging mechanisms such as Te Pūnaha Taonga and Taonga governance entities are useful starting points for identifying appropriate parties and overlapping interests.

The extent of engagement should be proportionate to the nature, significance, and potential impacts of the activity, but as a general principle should move beyond consultation towards meaningful engagement wherever possible. Engagement should begin before any access to taonga species or mātauranga Māori occurs and continue throughout the research, innovation, and commercialisation lifecycle. This includes relationship-building, co-design, free, prior and informed consent (FPIC), participation in governance and decision-making, agreements relating to access and benefits, ongoing communication, monitoring, and stewardship beyond project completion.

Operationalising these principles has been an ongoing structural challenge given the absence of a regulatory framework and tensions between overlapping interests, however, the Tiaki Taonga framework serves as the most developed articulation of these principles. This includes affirming the mauri of taonga Māori as an intrinsic value in its own right; recognising whakapapa relationships of taonga with people; guaranteeing mana motuhake and tino rangatiratanga of kaitiaki; upholding manaakitanga for the collective benefit of all; and exercising kaitiakitanga in a manner that supports the benefit and wellbeing of Māori and of Aotearoa as a whole.

In practice, these principles would require organisations to actively recognise and uphold the rights and responsibilities of kaitiaki in relation to their taonga. This could include engaging with the appropriate kaitiaki before accessing or using taonga species and mātauranga Māori; supporting Māori decision-making and governance over matters that affect their taonga; ensuring benefit-sharing arrangements are fair and equitable; and respecting tikanga and

cultural protocols in research and commercial activities. This includes moving beyond consultation towards genuine partnership, shared decision-making, and recognition of kaitiaki authority and responsibilities. More detail on the distinction between engagement approaches is provided below.

Case study 1: Te Pūnaha Taongaⁱⁱ

Te Pūnaha Taonga is a practical tool to support the research and innovation lifecycle, including providing a starting point to identifying and engaging with the appropriate kaitiaki. The platform allows iwi, hapū, marae, whenua Māori entities, and other Indigenous organisations to register their relationships with taonga species and participate in species-specific governance groups. This helps identify who should be engaged when research or commercial activity involves a particular taonga and enables collective decision-making where multiple kaitiaki groups have overlapping interests in the same taonga.

Te Pūnaha Taonga is designed to support provenance, governance, benefit-sharing, and compliance by connecting kaitiaki, researchers, companies, and regulators through a common system.

Case study 2: Taonga governance entities

The emergence of taonga governance entities enables direct participation within the innovation system itself, including through holding intellectual property, negotiating access and benefit-sharing agreements, receiving and distributing benefits, participating in commercial ventures, commissioning research, and advocating for the interests of taonga and their associated kaitiaki communities.

Existing iwi and hapū entities remain fundamental holders of rights and responsibilities in relation to taonga. However, biodiversity utilisation often involves multiple overlapping kaitiaki interests, long commercial timeframes, specialist technical and legal expertise, and species-specific stewardship functions that existing institutions were not necessarily designed to perform. Taonga governance entities are therefore proposed as complementary institutions rather than substitutes for iwi and hapū authority. Their purpose is not to replace existing governance arrangements, but to provide practical mechanisms through which rights, responsibilities, benefits, and obligations associated with particular taonga can be exercised and managed over time.

Recognising who holds authority and interests in Indigenous biodiscovery activities is essential to ensuring that research, innovation, and commercialisation involving taonga species are conducted in a manner that upholds the rights, responsibilities, and aspirations of kaitiaki. Mechanisms such as Te Pūnaha Taonga and taonga governance entities provide practical pathways for identifying appropriate kaitiaki, supporting collective decision-making, and enabling fair and enduring stewardship arrangements. Together, these approaches help ensure that the use of taonga species and mātauranga Māori is guided by those who whakapapa and are inherently responsible to them, while creating certainty for investors and opportunities for benefits to flow for the long-term and generational wellbeing of taonga, the taiao, and people.

Taonga governance entity example: Kānuka Charitable Trust

The Kānuka Charitable Trust (KCT) was established in 2023 to maintain the mana and mauri of kanuka (*Kunzea ericoides*), and to ensure that Te Ao Māori values are at the core of the kānuka industry. It recognises that the kaitiaki function must be explicitly institutionalised, and that an entity capable of articulating the needs of the taonga and the rights and responsibilities of kaitiaki is essential to prevent the extraction of value without benefit to species, kaitiaki, or communities.

KCT and Hikurangi Bioactives Limited Partnerships co-invested in partnership with AgResearch on a national survey of Māori landowners (January–March 2025, 179 participants) gathering perspectives on land governance, decision-making, and aspirations. The survey confirmed strong interest in low-impact, high-value land use aligned with tikanga and environmental values, with kānuka and mānuka identified as promising native species for enterprise development. A series of animated videos for landowners about kānuka industry opportunities is in production. These initiatives were designed to connect landowners to industry through culturally grounded, practical tools.

Figure 1: Kānuka Charitable Trust Case Study.ⁱⁱⁱ

Why is engagement with kaitiaki important?

Establishing and maintaining fair, equal, and trusted relationships with kaitiaki ensure the cultural significance of taonga and mātauranga Māori throughout the research and innovation process. This includes active leadership and participation by kaitiaki in decision-making, research design, benefit-sharing, and stewardship. Rather than simply seeking feedback, reciprocal relationships require mutual responsibility, FPIC, shared authority, well-crafted agreements, and fair and equitable benefits to be shared throughout the research and commercialisation process. These relationships set the foundation to keep all parties, including taonga, safe and for mutually beneficial outcomes to be achieved.

Conventional approaches to involving Indigenous Peoples in research and commercialisation have typically ranged from one-way or limited engagement to consultation and advisory participation. Although consultation and advisory roles can improve engagement, they often leave Indigenous interests outside the systems in which decisions about research, investment, intellectual property, data, and commercialisation are made.

These approaches can be understood as a spectrum of engagement:

- **Unilateral engagement:** Kaitiaki are presented with formal documents containing predetermined obligations and benefit-sharing arrangements, without having contributed to the development of those terms. This approach may be efficient, and can provide consistency between multiple communities that may be engaged with the agreement-seeking party, but fails to recognise the cultural significance of taonga species and mātauranga Māori. It is therefore unlikely to build enduring relationships with kaitiaki or contribute meaningfully to the intended outcomes of the research.
- **Consultation:** Kaitiaki are invited to provide feedback on how mātauranga Māori might be incorporated into a project. While this can be a useful starting point, consultation

alone provides limited influence over decisions and may create a risk of knowledge being misunderstood, taken out of context, or used inappropriately. Genuine consultation requires sufficient time and care to understand cultural contexts, identify appropriate sampling sites, and recognise the customary uses and significance of taonga species.

- **Advisory participation:** Kaitiaki provide advice intended to guide the project and inform how benefits may be shared. This can support relationship-building and the exchange of knowledge, but advisory roles generally do not confer decision-making authority. Unless appropriate governance and benefit-sharing arrangements are agreed from the outset, kaitiaki may have limited influence over how their knowledge is used or how resulting benefits are distributed.
- **Meaningful engagement:** Kaitiaki are involved early and throughout the research and commercialisation process, with the time, resources, and authority needed to participate effectively. This can include resourcing for some or all engagement activities (both internally within the community and with the external party) and recognising cultural contexts and tikanga, identifying appropriate sampling sites, protecting mātauranga Māori and taonga species, and agreeing on governance, intellectual property, data management, and fair and equitable benefit-sharing arrangements. The guiding principles below provide a foundation for this form of engagement.

Taonga governance entity example: Wairuakohu Charitable Trust

The Wairuakohu Charitable Trust (WCT) was established by representatives of Te Kawerau ā Maki, Ngāti Hauā, and Ngāti Hinerangi, with other iwi joining subsequently, to maintain the mana and mauri of Wairuakohu (*Radula marginata*) and protect the rights and responsibilities of its kaitiaki. Wairuakohu is an endemic liverwort that produces a unique family of cannabinoid-like compounds with potential therapeutic applications. The Trust provides an independent, collective structure through which kaitiaki govern research, genomic information and intellectual property associated with the taonga, while enabling scientific collaboration and responsible commercial development.

Since 2017, the Wairuakohu programme has brought together kaitiaki, researchers, and commercial partners across conservation biology, genomics, chemistry, synthetic biology, and pharmaceutical development. Its work has included population surveys and habitat monitoring, development of a reference genome, identification of novel compounds and biosynthetic pathways, and investigation of sustainable production systems that avoid large-scale harvesting from the wild. Participating iwi now undertake species monitoring independently, while internships, postgraduate research, employment, and governance participation have created pathways for Māori into advanced biotechnology. Intellectual property is held under the Trust's stewardship while decisions about licensing and commercialisation mature, helping ensure that future benefits support kaitiaki communities, research, conservation, and restoration. A legal partnership was recently established with three investors and the Trust to commercialise the IP.

Figure 2: Wairuakohu Charitable Trust Case Study.^{iv}

Meaningful engagement with kaitiaki represents the highest standard of partnership and should underpin all research and innovation involving taonga species and mātauranga Māori. By

moving beyond consultation towards relationships founded on trust, mutual respect, shared decision-making, and equitable benefit-sharing, researchers can uphold the rights, responsibilities, and aspirations of kaitiaki while ensuring research and development activities are culturally informed, ethically sound, responsive to community priorities, and truly sustainable. Embedding these principles throughout the research and development lifecycle strengthens both the quality of outcomes and the enduring stewardship of taonga and mātauranga Māori for current and future generations.

When should engagement occur?

Engagement with kaitiaki should begin before any access to taonga species or mātauranga Māori occurs and continue throughout the entire research and innovation lifecycle, and beyond commercialisation. This includes establishing relationships through initial hui or wānanga (meetings or workshops), obtaining FPIC, developing and implementing mutually agreed terms (MATs), co-designing research, participating in decision-making, monitoring outcomes, and ongoing stewardship beyond the life of a project. Maintaining these relationships beyond project completion ensures kaitiaki relationships with taonga are preserved, supports long-term stewardship to monitor impacts, embeds accountability, protects the rights and interests of taonga, and agreed benefits are delivered over time. **Figure 3** identifies these considerations throughout the research and innovation lifecycle, including access, research and development, commercialisation and post project completion.

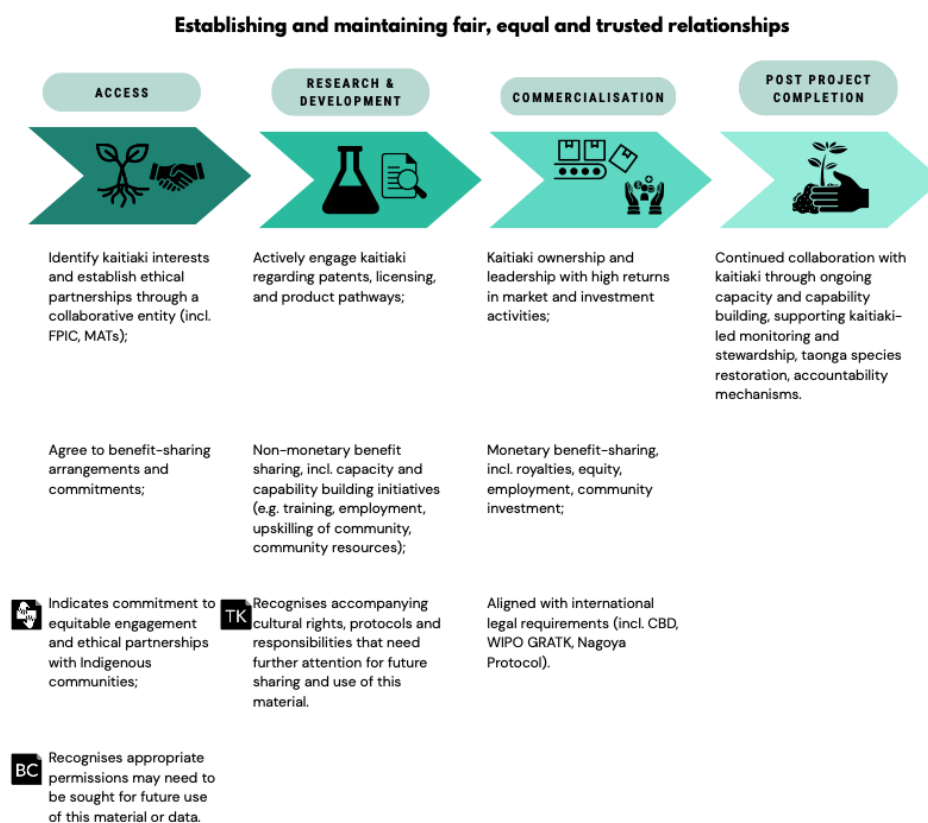


Figure 3: Establishing and maintaining fair, equal and trusted relationships with kaitiaki throughout the research and innovation lifecycle.^v

Monetary benefits example: Hikurangi Bioactives Limited Partnerships' royalty model

Hikurangi Bioactives' royalty distribution model provides one of the clearest practical expressions of benefit-sharing for a taonga species in Aotearoa. Of royalties generated from a licensed clinically-proven treatment for eczema that contains kākūka essential oil as the active ingredient: 35% goes to private investors; 35% goes to fund environmental, educational, and entrepreneurial projects in and around the Waiapu Valley where the venture originated, with a portion earmarked for the eight Māori land blocks involved in research and development (R&D) from the beginning; and 30% goes to kākūka itself to recognise the species' right to share in any profits derived from the plant. This third stream, which directly acknowledges the taonga's own interests, flows to an entity representing the interests of the taonga.

Figure 4: Hikurangi Bioactives' Royalty Model Case Study.^{vi}

Guiding principles for engagement with kaitiaki

To ensure fair, equal, and trusted relationships between researchers, companies, and kaitiaki, the following principles have been identified to support researchers' cultural license to operate. These principles should not be read in isolation of specific values, principles, and tikanga of respective kaitiaki, whānau, hapū, iwi, or taonga, but rather as a foundation to be discussed and details negotiated between researchers, companies, and kaitiaki.

The principles draw on the Tiaki Taonga framework^{vii}, Public Research Organisations^{viii}, and most recently, an Indigenous biodiscovery wānanga that gathered hapū and iwi representatives, researchers, scientists, and business owners across the country.^{ix}

Uphold Te Tiriti o Waitangi principles and kaitiaki rights, interests, and responsibilities

Recognise, respect, and actively protect tino rangatiratanga and kaitiakitanga of kaitiaki, whānau, hapū, iwi, and taonga species as affirmed under Article Two of Te Tiriti o Waitangi. Decision-making should recognise the rights of mana whenua and be guided by genuine partnership and kaitiaki-led protocols.

Protect and enhance the mauri, whakapapa, and integrity of taonga

Affirm the intrinsic mauri (value) of taonga species, including indigenous biodiversity and mātauranga Māori, and recognise the whakapapa relationships that connect taonga to people, places, ecosystems, and other taonga. Activities should contribute to the protection, restoration, and long-term wellbeing of indigenous biodiversity, taonga, and the ecosystems that support it.

Ensure Free, Prior and Informed Consent (FPIC)

Access to, use of, or research involving taonga species and mātauranga Māori should occur through appropriate engagement with relevant kaitiaki and be based on free, prior and informed consent, including clear disclosure of purpose, potential risks, benefits, and intended use.

Deliver fair, equitable, and collective benefits

Benefits arising from the use of taonga species and mātauranga Māori or related innovations should be shared fairly and reasonably with relevant kaitiaki and communities. Benefit-sharing should support Māori and taonga wellbeing and aspirations while contributing to the wider wellbeing of Aotearoa New Zealand.

Respect tikanga and protect cultural knowledge and data sovereignty

Recognise and uphold tikanga (cultural protocols) associated with taonga and mātauranga Māori, including any conditions on access, use, storage, sharing or publication as agreed by the relevant kaitiaki and taonga. Indigenous data and knowledge sovereignty should be respected, and organisations should act as trusted custodians where they hold taonga, mātauranga, or associated data.

Act with integrity, accountability, and transparency

Maintain ethical, reputable, and transparent practices that provide certainty for all parties. Governance, decision-making, access arrangements, benefit-sharing mechanisms, and custodianship responsibilities should be clear, accountable, and capable of independent scrutiny.

Build relationships, capability and shared stewardship

Foster enduring, respectful relationships with kaitiaki and support the capability and capacity of all partners to participate effectively in stewardship, research, innovation, and decision-making. Collaboration should embody manaakitanga and collective responsibility for the benefit of present and future generations.

Align with international obligations and national best practice frameworks

Be consistent with national and international frameworks and standards as appropriate, including the Convention on Biological Diversity,^x the Nagoya Protocol,^{xi} the WIPO Treaty on Genetic Resources and Associated Traditional Knowledge,^{xii} FAIR^{xiii} and CARE principles,^{xiv} Local Contexts Labels,^{xv} He Tohu Ārahi Guidelines,^{xvi} and Te Nohonga Kaitiaki Guidelines.^{xvii}

Glossary

hapū

sub-tribe

hui

meeting

iwi

tribe

kaitiaki

Synonymous to guardian, steward, protector or caregiver. In this context, it includes a marae, hapū, iwi or individual of Māori descent, or Māori entity as tangata whenua (the Indigenous Peoples of Aotearoa).

kaitiakitanga

the responsibility and obligation to nurture and care for the mauri of a taonga and the ecosystems around it.

mana

authority, prestige, reputation, spiritual power

mana motuhake

authority, self-determination, separate identity

mana whenua

authority over land or territories

manaakitanga

hospitality, generosity, kindness, support

marae

traditional and sacred gathering grounds

mātauranga Māori

Described as a broad concept that includes Māori traditional knowledge which encompasses the worldview of whānau, hapū and iwi as kaitiaki, which itself is an obligation derived from whakapapa.

mauri

the life principle or living essence contained in all things, animate and inanimate.

taiao

environment; ecosystems; nature

taonga

A treasured possession, including property, resources, and abstract concepts such as language, cultural knowledge, and relationships.

taonga species

Encompasses the biological and genetic resources of indigenous species in Aotearoa New Zealand.

Te Ao Māori

Māori worldview; the Māori world

Te Tiriti o Waitangi

Aotearoa New Zealand's constitutional framework and founding document. Article 2 of Te Tiriti affirms Māori tino rangatiratanga over lands, forests, fisheries, and ngā taonga katoa (all treasures, including tangible and intangible).

tikanga

traditional rules for conducting life, custom, method, rule, law

tino rangatiratanga

Indigenous self-determination

wānanga

workshop

whakapapa

genealogy, ancestral connections, lineage.

whānau

family

whenua

land

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