



Indigenous Biodiscovery in Aotearoa New Zealand

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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.

This document introduces Indigenous biodiscovery within the context of Aotearoa New Zealand. It outlines the historical, legal, and cultural foundations that shape contemporary discussions, including Te Tiriti o Waitangi, Wai 262, and Access and Benefit-Sharing (ABS). The brief also highlights why fair and equitable governance arrangements are essential for protecting kaitiaki rights and interests, supporting environmental stewardship, and enabling innovation that delivers benefits for kaitiaki, taonga species, researchers, and commercial partners alike.

What is Indigenous biodiscovery?

Indigenous biodiscovery refers to the access, research, development, and commercial use of indigenous biological and genetic resources (such as native plants, fungi, animals, marine organisms and microorganisms), also known as taonga species. In Aotearoa New Zealand, it recognises that Māori have been the original proponents of ‘biodiscovery’ through generations of developing rongoā Māori, mahinga kai, and kaitiakitanga. Biodiscovery in this context is not only about scientific research, but it also involves governance, stewardship, intellectual property, commercialisation, and access and benefit-sharing linked to taonga species and mātauranga Māori.

Aotearoa New Zealand possesses globally distinctive biodiversity shaped by approximately 80 million years of geographic isolation. This unique biodiversity increasingly underpins opportunities in high-value sectors including nutraceuticals, pharmaceuticals, cosmetics, functional foods, biomaterials, biotechnology, advanced extraction technologies, and precision natural product development.

Indigenous biodiscovery involves respecting kaitiaki relationships with taonga species, supporting tino rangatiratanga (Māori self-determination), recognising rights and responsibilities, ensuring fair and equitable ABS, and enhancing biodiversity protection, mātauranga Māori, cultural wellbeing, and ethical commercialisation.

Historical context

Before the arrival of European settlers, Māori developed extensive knowledge of native species through observation, experimentation, and resource management. This knowledge formed sophisticated systems of medicine, food production, and environmental stewardship that contribute to the body of Māori knowledge known as mātauranga Māori.

Following European arrival, early scientists beginning with Joseph Banks and Daniel Solander collected and documented New Zealand species for scientific, commercial, medical, and military purposes. Throughout the 19th and early 20th centuries, native plants, animals, fungi, and marine organisms were collected and utilised with little recognition of Māori knowledge,

relationships, or rights. This has continued through the access of taonga species held in ex-situ environments, including private collections found in research organisations, botanical gardens, seed banks, museums, and herbaria in Aotearoa New Zealand and across the globe. Māori were alienated from their taonga through land confiscation, loss of waterways, and legislation that suppressed traditional practices, including those associated with tohunga and rongoā Māori. As a result of Māori receiving little recognition or benefit from these developments over this period of time, there are ongoing concerns about biopiracy and value extraction, with both domestic and overseas companies claiming intellectual property rights based on New Zealand indigenous species.

Te Tiriti o Waitangi

Te Tiriti o Waitangi provides the foundation for Māori rights and interests concerning taonga species, mātauranga Māori, and indigenous biodiversity. Indigenous biodiscovery sits directly at the intersection of Te Tiriti obligations, biodiversity governance, scientific innovation, and Māori aspirations for greater authority in relation to taonga. The Wai 262 claim has the most direct application to Indigenous biodiscovery although numerous other claims and settlements make reference to taonga species and mātauranga Māori.

Wai 262 claim and Government response

The Wai 262 claim was lodged in 1991 by six claimants from the iwi of Ngāti Kurī, Te Rarawa, Ngāti Wai, Ngāti Porou, Ngāti Kahungunu, and Ngāti Koata.ⁱ It concerns the governance and protection of Māori traditional knowledge, cultural expressions such as haka and waiata, and the environments that have shaped Māori culture. It also addresses the cultural significance of Māori values, including the obligation of iwi and hapū to act as kaitiaki in relation to taonga that are central to their cultural identity.

The claim resulted in the Waitangi Tribunal report *Ko Aotearoa Tēnei*.ⁱⁱ It is the most significant development in biodiscovery governance in Aotearoa New Zealand. Central concepts emerging from Wai 262 include kaitiakitanga, tino rangatiratanga and recognition of taonga species and mātauranga Māori, as well as authority over access to, and benefits arising from, taonga species. The Tribunal recommended the development of a regulatory regime for bioprospecting and biodiscovery, disclosure of origin requirements for patents, recognition of kaitiaki relationships with taonga species, and a partnership-based approach between Māori and the Crown.

Governments have been slow to implement Wai 262 recommendations. For example, the 2002 and 2007 Ministry of Economic Development discussion papers on bioprospecting acknowledged Māori interests but highlighted the absence of a coherent national framework.ⁱⁱⁱ No legislation resulted. However, Te Puni Kōkiri has developed biodiscovery policy options on a potential ABS framework as part of the Crown's response, but progress has stalled since a discussion document ready for public consultation was withheld at the end of 2025.^{iv}

Concurrently, the government recently launched the Aotearoa New Zealand Biodiscovery Platform, hosted by the Bioeconomy Science Institute Maiangi Taiao and supported by a \$42.8 million investment over seven years. It represents a significant national commitment to

“unlocking the value of Aotearoa’s unique biological resources through collaborative and culturally grounded innovation.”^v The platform seeks to support pathways from discovery to commercial application, and has the potential to foster partnerships that recognise Māori interests, knowledge systems, and aspirations in the stewardship and sustainable use of taonga species.

Kaitiaki rights and interests

Kaitiaki relationships with taonga species are typically derived through whakapapa and mātauranga Māori association, use and development.^{vi} These relationships are collective, enduring, and not reducible to simple ownership rights. They encompass responsibilities for stewardship of species and their habitats, authority to make decisions about how species and mātauranga Māori are used, and obligations to ensure that use is consistent with the wellbeing of the species itself, the people, and the taiao.

The Tiaki Taonga framework developed by the Wai 262 claimants group Te Taumata Whakapūmau and their technical advisory group, Kahu Aronui, provides the most developed articulation of these principles in an operational framework.^{vii} It is guided by values including affirming the mauri of taonga 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 New Zealand as a whole. Tiaki Taonga also includes structural elements such as Pātaka Taonga, an example of a domestic clearing-house mechanism that ensures authority rests with appropriate Māori entities.

Operationalising these principles between kaitiaki or Māori entities (hapū, iwi, etc.) that hold rights and interests for the same or similar taonga has been a significant structural challenge. Since the Mānuka Charitable Trust was established to represent the interests of mānuka, other legal entities have been established to participate in research and commercialisation projects. These are designed to represent the interests of taonga, the ecosystems that support them, and kaitiaki with shared interests in the taonga. More detail on emerging taonga governance entities can be found in *‘Indigenous Biodiscovery: Engaging with Kaitiaki.’*

International context

A broad array of international frameworks on access and benefit sharing have been emerging over the last 35 years, including the Convention on Biological Diversity (**CBD**);^{viii} the Nagoya Protocol;^{ix} the Cartagena Protocol; the Kunming-Montreal Global Biodiversity Framework (**KM-GBF**);^x the World Intellectual Property Organization’s Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge Treaty (**WIPO GRATK Treaty**);^{xi} Cali Fund negotiations;^{xii} the Mataatua Declaration;^{xiii} Mo’otz Kuxtal Guidelines;^{xiv} Akwé: Kon Guidelines;^{xv} CARE Principles for Indigenous Data Governance;^{xvi} Local Contexts Labels;^{xvii} and emerging Rights of Nature frameworks.

These frameworks are moving progressively toward recognising collective governance rights, Indigenous data sovereignty, obligations regarding Digital Sequence Information (DSI), and practical benefit-sharing responsibilities extending beyond simple financial compensation.

The Nagoya Protocol (2010) established the first comprehensive international framework for ensuring that genetic resources and associated traditional knowledge are accessed with prior informed consent and that benefits arising from their use are shared fairly and equitably. While Aotearoa New Zealand's government supports the Protocol's underlying objectives, it has not ratified the agreement due to unresolved domestic issues relating to Te Tiriti o Waitangi, the Wai 262 claim, kaitiaki authority, and the design of an appropriate national ABS system.

International developments such as the CBD's KM-GBF, the Cali Fund for DSI, and the CARE Principles have strengthened expectations around Indigenous data sovereignty, stewardship of genomic information, and equitable participation in biodiversity-based innovation. The CBD's Clearing-House Mechanism also provides as a global repository for examples of ABS arrangements.^{xviii}

More recently, the adoption of the WIPO GRATK Treaty has further advanced the international recognition of Indigenous interests through mandatory disclosure of origin requirements in patent applications. Together, these developments signal a global shift towards more transparent, equitable, and rights-based approaches to biodiscovery. For Aotearoa New Zealand, they provide important lessons for the future development of a biodiversity governance system that balances innovation, commercial opportunity, Te Tiriti obligations, and the rights and responsibilities of kaitiaki.

South Africa provides one of the most relevant examples of ABS for Aotearoa. Through its Bioprospecting, Access and Benefit-Sharing Regulations, South Africa requires permits, negotiated benefit-sharing agreements, and formal recognition of Indigenous and local community interests in biodiscovery activities. The internationally recognised Rooibos agreement with the San and Khoi peoples demonstrates how ABS can generate both monetary and non-monetary benefits while supporting a successful natural products industry. South Africa's experience shows that Indigenous rights, equitable benefit-sharing, and commercial development are not competing objectives, but can be integrated within a regulatory framework that strengthens Indigenous participation, governance, and economic outcomes.

Figure 1: South Africa ABS example.^{xix}

Why Access and Benefit-Sharing matters

ABS arrangements help ensure access, research, development and commercialisation of indigenous biological and genetic resources and traditional knowledge is conducted fairly, ethically, and in partnership with Indigenous Peoples who have an inherent role and responsibility to protect and enable ethical utilisation of those resources. In the context of Aotearoa New Zealand, ABS is particularly important because many biodiscovery opportunities are closely associated with taonga species and mātauranga Māori.

Protecting kaitiaki rights and interests: ABS helps protect the rights and interests of Māori by recognising that kaitiaki have enduring relationships and responsibilities toward taonga species

and mātauranga Māori. Historically, indigenous organisms and associated knowledge have often been used without Māori consent, recognition, or involvement. ABS provides a mechanism to ensure that Māori have a voice in decisions about how taonga species are accessed, researched, and commercialised.

Supporting environmental sustainability and stewardship: ABS is not only about people, it is also about protecting taonga species and the ecosystems that support them. Benefits generated through biodiscovery can be directed toward environmental sustainability, conservation, restoration, monitoring, and stewardship activities that support the long-term wellbeing of taonga species and the ecosystems in which they exist.

Supporting rangatiratanga and kaitiakitanga: ABS creates practical ways for Māori to exercise rangatiratanga and kaitiakitanga. Rather than simply consulting Māori after decisions have been made, ABS seeks to involve kaitiaki in decision-making processes from the outset through mechanisms such as the Tiaki Taonga Framework, Free, Prior and Informed Consent (FPIC), governance participation, and negotiated agreements.

Promoting fairness and equity: ensures that benefits arising from the use of taonga species and mātauranga Māori are shared fairly and equitably. When companies or researchers generate value from indigenous plants, fungi, animals, microorganisms, or mātauranga Māori, kaitiaki and their communities should also share those benefits rather than having all benefits flow to external parties.

Preventing exploitation and biopiracy, including through intellectual property rights: there is increasing patenting and commercialisation of products derived from taonga species. ABS helps address this by creating requirements for engagement, consent, transparency, and benefit-sharing. This reduces the risk of taonga species and mātauranga Māori being used without acknowledgement or reciprocal benefits.

Providing certainty for researchers and businesses: a clear ABS system benefits researchers, investors, and companies by providing transparent rules about who should be engaged, what permissions are required, and how benefits should be shared. This reduces uncertainty, strengthens relationships, and supports ethical and sustainable commercial development.

Recognising monetary and non-monetary benefits: benefits are not limited to financial returns. Meaningful benefit-sharing may include employment opportunities, training, and capability development, participation in research, co-authorship of publications, data repatriation, governance involvement, knowledge documentation, and investments that benefit taonga species and the ecosystems that support them. These non-monetary benefits are often just as important as financial returns for kaitiaki communities.

ABS is critical to ensuring that biodiscovery is carried out in a way that respects Māori rights and interests, supports kaitiaki roles and responsibilities, prevents exploitation, promotes environmental sustainability, and creates fair and equitable outcomes for all parties involved. It provides the foundation for ethical and Te Tiriti-consistent use of taonga species and

mātauranga Māori while ensuring that benefits are shared with the communities, taonga, and ecosystems from which those resources originate.

Australia provides a useful example of how Indigenous knowledge and commercial innovation can work together within a biodiscovery framework. Through a decentralised access and benefit-sharing system, Aboriginal traditional knowledge holders have partnered with researchers to develop novel injectable medical gels derived from Indigenous knowledge and biological resources. The collaboration generated commercial returns that were reinvested into education, training, employment, and community development initiatives, demonstrating how biodiscovery can deliver both economic and social benefits. More broadly, Australia's experience highlights how Indigenous participation, cultural and intellectual property protections, and benefit-sharing mechanisms can support ethical innovation while recognising Indigenous rights and interests.

Figure 2: Australia Biodiscovery Framework example.^{xx}

Glossary

haka

traditional performance

hapū

sub-tribe

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.

mahinga kai

traditional food gathering practices

mana

authority, prestige, reputation, spiritual power

mana motuhake

authority, self-determination, separate identity

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.

rongoā Māori

traditional Māori healing; medicinal qualities.

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

tohunga

expert practitioner

waiata

songs

whakapapa

genealogy, ancestral connections, lineage.

whenua

land

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