

Māori values and native forest (Ngahere)

Ngahere

“Man and plants have a common origin. Māori saw plants as having senior status, Tane created them before mankind, and they were therefore respected as older relatives. They are the link between man and sacred ancestors, Papatūānuku and Ranginui” (Te Rangi Hiroa 1950).

Forests are complex communities above and below ground. We have 2500 native species of conifers, flowering plants, and ferns; and 80% occur nowhere else in the world (endemic). Our evergreen forests are among the most ancient and unique in the world and have evolved over millions of years with lineage dating back 100 million years. Many of our birds, animals, fish, insects and fungi are also endemic.





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There are two main types of forest in Aotearoa-New Zealand: conifer–broadleaf (mainly podocarp), and beech. Our longest-living trees, the kauri, have been aged at over 1000 years old, and many of our podocarps have grown to 800 years or more. Before the arrival of the European, Māori had whakapapa, names and uses for many trees, plants and animals. Some of this mātauranga o ngahere is still held by individuals in iwi/hapū/whānau, and small amounts have been documented.

Tiakina ngā manu, ka ora te ngahere
Look after the birds and the forest flourishes
Ka ora te ngahere, ka ora ngā manu
If the forest flourishes, the birds flourish





Māori values and native forest (Ngahere)

State of the Ngahere

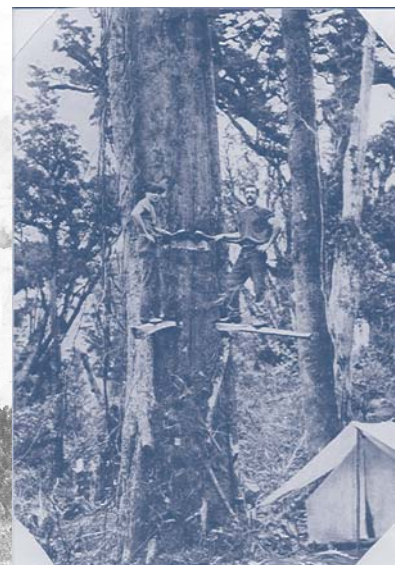
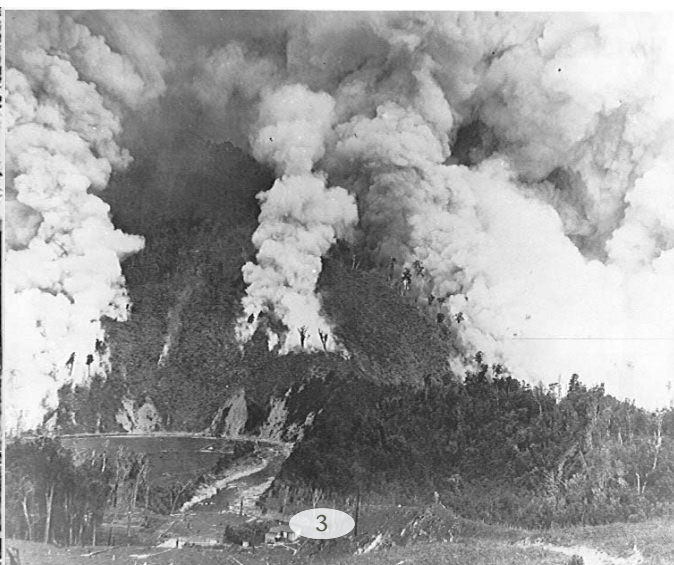
An analysis of the present spatial extent of native forest in Aotearoa–New Zealand shows that approximately one-quarter of the land area is still in forest. However, large areas of forest are in poor condition. Transformation of the landscape of Aotearoa from largely native forest to mainly grassland or pasture has been achieved in a relatively short time frame – less than 200 years. Significant native forests in lowland areas are fragmented and isolated. Most ngahere are threatened by introduced animals, insects, plants, fungi and human activity. We can therefore describe our Ngahere as either large intact areas of bush usually on mountains and steep hills, or isolated fragments often in lowland areas near our towns and cities.

Aotearoa-New Zealand has a record of rapid forest destruction:

Record of vegetative change (NZ):

- Pre-human: 81% indigenous forest
- 1770: 51% indigenous forest
- 1840: 50% indigenous forest
- Present day: 23% indigenous forest

Most of the present indigenous forest is on steep, less productive, mountainous terrain or steepland.





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AN ANALYSIS OF TODAY'S VEGETATION

Vegetative cover (2005) of Aotearoa-New Zealand (27 053 400 ha)

Land cover	% area
Indigenous forest	23
Scrub and tussock	23
Exotic forest (plantation)	7
Grassland (pasture)	44
Wetlands	0.5
Other (Urban, horticultural)	2.5

Vegetative cover (2005) of Māori freehold land (1 515 071 ha)

Land cover	% area
Indigenous forest	33
Scrub	20
Exotic forest (plantation)	12
Grassland (pasture)	30
Wetlands	2
Other (Urban, horticultural, tussock)	3





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Ngahere composition

Not all native forests are the same—they vary throughout the landscape, with the species present changing in relation to elevation/altitude, landform, climate and soils. Forests of certain composition are now rare, such as lowland forest dominated by podocarps like kahikatea, rimu, totara, matai and miro; conifer-broadleaf forest dominated by kauri; swamps with kahikatea; coastal forests comprising pohutukawa, rata, pukatea, ti kouka, nikau and kohekohe. All Ngahere contain special forest taonga, such as raukawa, and associated forest plants such as kiekie and ferns. Many forests now represent only isolated remnants or pockets, for example, tanekaha, puriri, titoki, karaka, kowhai, rewarewa, kawakawa, in contrast to more extensive forests of tawa, kamahi, taraire and high altitude forests of beech.

Taonga Tuku Iho

The Ngahere traditionally represented the Māori supermarket, the spiritual domain, the schoolhouse and the medicine cabinet, as well as being a source for many other uses.





Māori values and native forest (Ngahere)

What are the Māori values associated with these Ngahere?

Ngahere and remaining forest fragments nurture significant biodiversity and cultural values that support important plant, animal, insect, and fish species, communities, and ecosystems. They also help sustain many cultural activities and practices. Natural areas such as forest fragments and riparian (at the sides of rivers and streams) landcover help enhance aquatic ecosystems and reduce impacts on coastal–marine environments.

Remaining ngahere blocks and forest fragments are:

- important habitats and corridors for native birds
- often the only areas left (habitat) for many threatened species of plants, animals, birds, fish, and insects
- significant in terms of cultural values
- significant in terms of biodiversity values
- traditional supermarkets (kai o te ngahere), learning centres (wānanga o te ngahere), the medicine cabinet (kapata rongoā), schools (kura o te ngahere) and spiritual domain (wairua o te ngahere)
- habitats for native fish such as kōkopu, kōaro, tuna
- a reservoir for cultural resources and materials.





Māori values and native forest (Ngahere)

Why should we protect Ngahere?

- they may be the only natural forest within some tribal rohe
- they are part of our whakapapa
- they may contain significant or rare taonga
- they may be the last remaining natural areas within some regions and districts
- these remnant bush areas have become increasingly precious since deforestation, and fragmented and isolated areas often represent all that is left
- they are repositories for mātauranga
- they are significant sources of timber for carving and building
- they are significant for rongoā
- they are significant for sustainable cultural harvest
- they are significant spiritual domains.





Māori values and native forest (Ngahere)

Projects

Projects involving Māori groups (kaitiaki) are making a significant contribution to indigenous biodiversity through protection of native forest on their whenua, on Crown land, and on private land and include:

- kawenata (covenants) of bush areas (e.g. Ngā Whenua Rahui)
- riparian planting
- protection of coastal forest and trees such as pohutakawa and rata (e.g., Project Crimson)
- restoration projects
- cultural projects to restore and enhance ngahere taonga
- protection of native bird and animal species.

Much of this work is linked to community development projects involving marae, whānau, hapū, and iwi and organisations such as trusts and incorporations. Many Māori groups are enhancing their knowledge (mātauranga) of indigenous ecosystems. Knowledge resides with kaumātua, tohunga, specialists, experts, scholars within iwi/hapū/whānau and some universities/whare wānanga – much is passed on and recorded through wānanga and research projects. Contacts can be found in many kaitiaki groups throughout the country such as:

<http://www.kaitiaki.org.nz/>

<http://www.kaitiakitanga.co.nz/index.htm>

Nga Whenua Rahui

<http://www.doc.govt.nz/Community/007~Conservation-on-Private-Land/003~Nga-Whenua-Rahui.asp>





Māori values and native forest (Ngahere)

Māori knowledge

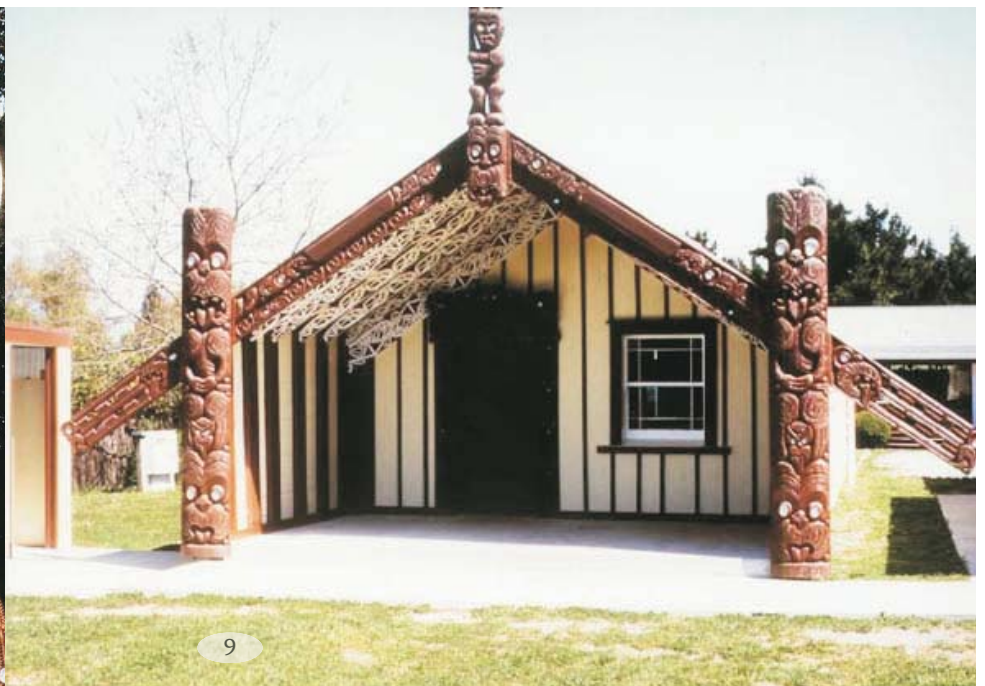
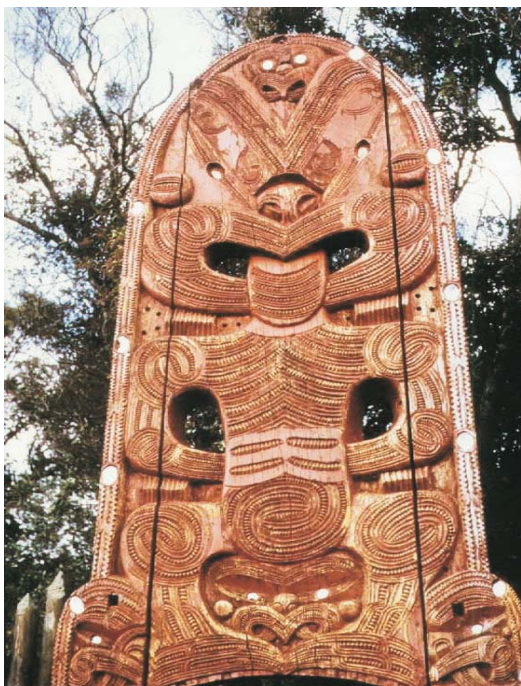
Māori values

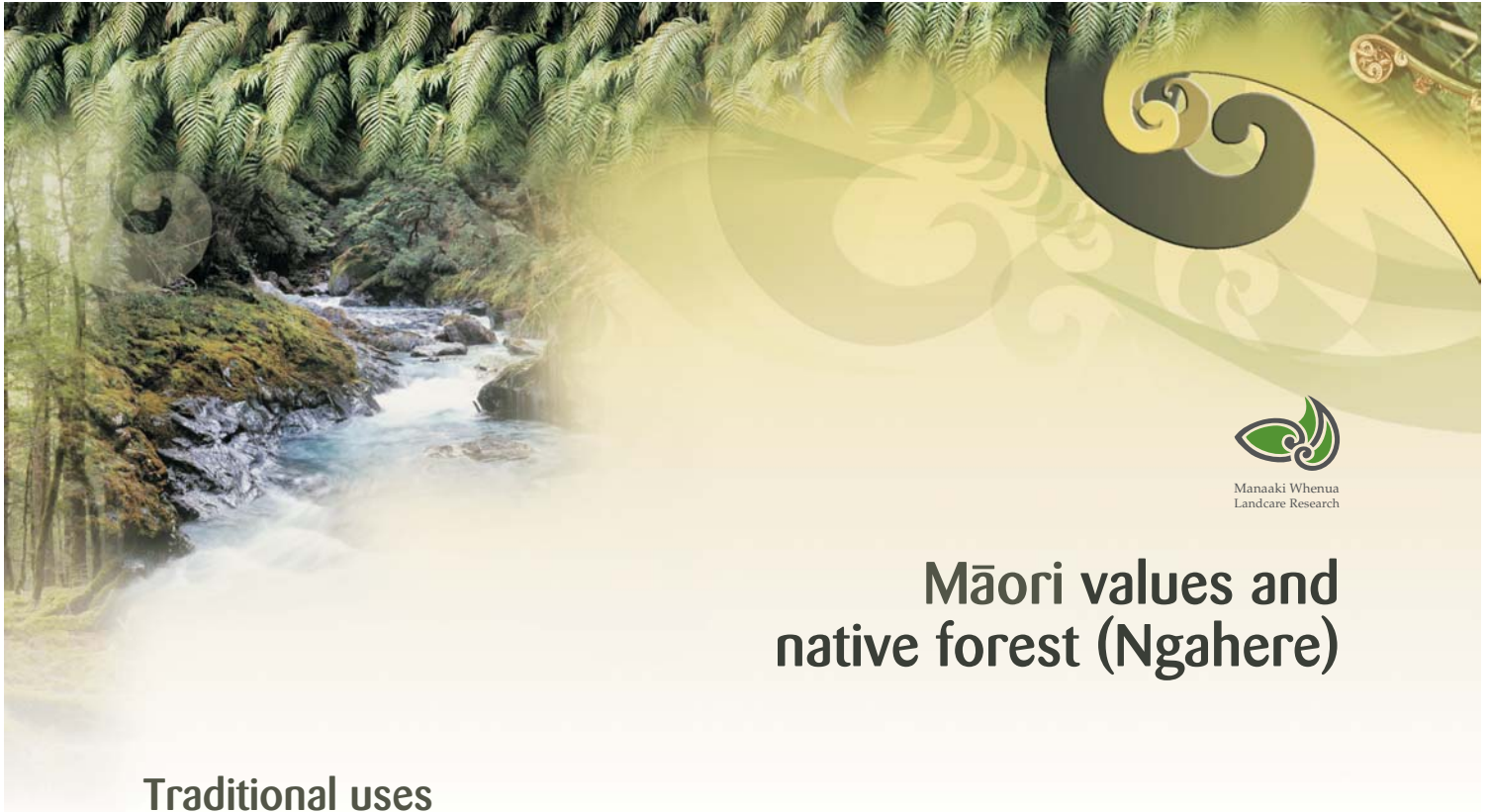
Māori values are “instruments through which Māori people experience and make sense of the world”.

Māori knowledge

In a traditional context, mātauranga Māori, is the “knowledge, comprehension, understanding of everything visible and invisible existing in the universe”, it includes both “Māori knowledge and knowledge systems”. “Mātauranga which involves observing, experiencing, studying and understanding the world from an indigenous cultural perspective, is often equated with wisdom.”

Māori once had enormous mātauranga about the forests and biodiversity, and interacted with these forests on a daily basis. The forest provided Māori with mana, resources, food, rangatiratanga, responsibility, spiritual relationship, wellbeing and survival. A large amount of traditional knowledge has been lost but many groups are reviving and revitalising the knowledge. Some groups are creating new Māori knowledge (mātauranga).





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Traditional uses

The forests were a source of mātauranga, mauri, mana, and wairua that provided the basis for many traditional uses. Information on traditional use can be derived from tangata whenua and some has been documented at various sites and in books:
<http://peopleplants.landcareresearch.co.nz/WebForms/default.aspx>

Customary harvest

Customary harvest included harvest of flora and fauna.

Kai from the bush

The edible products of the forest included the fruiting berries of indigenous plants, fern root, tubers, seeds, and ngā manu and ngā ika derived from the domain of Tanemahuta.

Manu

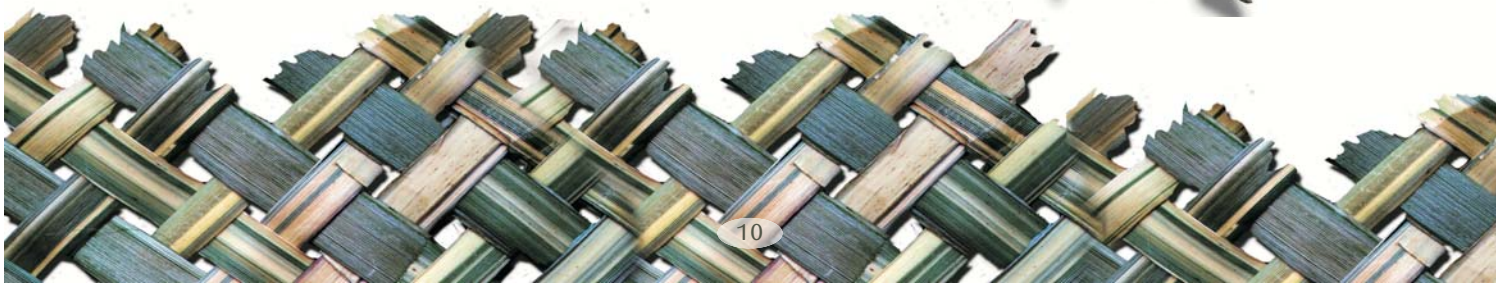
Traditionally, harvest of manu included: weka (woodhens), kererū or -, kūkupa (wood pigeon), hihi (stitchbird), tieke (saddleback), ruru (owl), kaka, kokako, korimako (bellbird), tui, kiwi, kakariki (parakeet), toutouwai (robin), miromiro (tomtit), and pārerera, papango, whio, and pūtangitangi (duck). Sadly, many of these native birds, for a number of reasons (e.g., predators, habitat loss) are now threatened with extinction.

Maori carving and building

Principal timbers included totara, rimu, matai, miro, mangeao, kauri, maire, kahikatea, kanuka and manuka.
<http://www.maori.org.nz/whakairo/>

Tohunga Whakairo

http://www.maoritreasures.com/konae_aronui/carve.htm





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Traditional Uses

Māori Medicines and healing

Rongoā

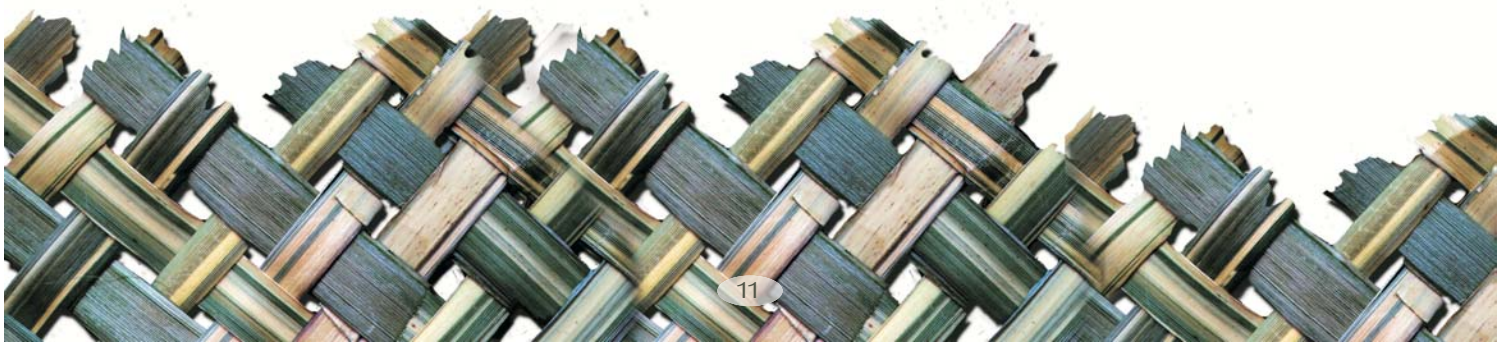
Rongoā included the physical remedies derived from trees, leaves, berries, fruits, bark and moss used to treat particular ailments. Rongoā were administered in association with karakia and other customs, and their use required a thorough knowledge of native flora and fauna, and experience in preparation, dispensing, and application.

Māori healing and medicines (rongoā)

Ngā Ringa Whakahaere o te iwi Māori (National Board of Māori traditional healers (Inc.)
<http://www.nrw.co.nz/index.htm>

Poumanawa Mātauranga Rongoā (courses)
Te Wānanga o Raukawa
<http://www.twor.ac.nz/ngaako/heastud/poumr.html>

Mātauranga Māori
<http://www.aotearoa.co.nz/tradition/kawakawa.htm>





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Glossary

- Te Ao Marama, Ngā mokopuna o Papatūānuku raua ko Ranginui—Biodiversity, richness of life
Tanemahuta—Atua, creator, father of the forests, birds
Tane—Progenitor of humans
Te wao tapu nui a Tane—the great sacred forest of Tane
Rakau—Tree, wood
Ngahere—Forest, bush
Ngahere urutapu—Virgin forest
Ngahere pāpango—Rain forest
Nga otaota, ngā tipu—Plants
Nga Pēpeke—Insects
Kararehe—Animals
Manu—Birds
Ika—Fish
Ngarara—Reptiles
Mātauranga Māori—Māori knowledge
Rongoā—Māori healing, medicines
Whakairo—Māori art design
Whakairo rakau—Māori wood carving
Raranga, whatu(a)—Weaving
Kaitiakitanga—guardianship, stewardship, the practice of exercising kaitiakitanga beneficial to the resource
Mauri—life force, spirit
Wairua—the spiritual dimension
Tohunga—knowledgeable expert, specialist





Māori values and native forest (Ngahere)

Useful web sites:

Biodiversity web sites

Biodiversity on line

<http://www.biodiversity.govt.nz/>

Biodiversity—native plants, animals, fungi, forest ecology

<http://www.landcareresearch.co.nz/research/biodiversity/>

Restoring Indigenous Biodiversity in Human Landscapes

Te Whakaora ake i ngā tini a tane i ngā whenua kua rawekehia e te tangata

<http://www.landcareresearch.co.nz/research/biodiversity/landscapesprog/>

Publications

Manaaki Whenua Press

<http://www.mwpress.co.nz/store/dynamicIndex.asp>

Tools

Ecological restoration workshops

http://www.landcareresearch.co.nz/research/biodiversity/landscapesprog/restoration_ecology.asp

Land Environments New Zealand (LENZ)

<http://www.landcareresearch.co.nz/databases/lenz/>

EcoSat web site

<http://www.landcareresearch.co.n/services/ecosat/>





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More information

Databases

Environmental databases (significant databases and collections of plants, animals, insects, fungi)
<http://www.landcareresearch.co.nz/databases/index.asp>

Ngā Tipu o Aotearoa—New Zealand Plants database
<http://nzflora.landcareresearch.co.nz/>

Ngā Tipu Whakaoranga—People Plants database
<http://peopleplants.landcareresearch.co.nz/WebForms/default.aspx>

Ngā Ripoiinga o ngā Ngarara Unahi Mohe o Aotearoa
<http://www.landcareresearch.co.nz/research/biodiversity/invertebratesprog/softscales/maori/mindex.asp>

Research

Sustainable indigenous forestry
http://www.landcareresearch.co.nz/research/biodiversity/forest/sust_forestry.asp

Ecological restoration workshops
http://www.landcareresearch.co.nz/research/biodiversity/landscapesprog/restoration_ecology.asp

Biosecurity—introduced plants, animals, fungi
<http://www.landcareresearch.co.nz/research/biosecurity/>





Māori values and native forest (Ngahere)

Contacts

Landcare Research
www.landcareresearch.co.nz

Dr Bruce Burns (Native forests, ecological restoration, geothermal vegetation)
BurnsB@landcareresearch.co.nz

Garth Harmsworth (Māori values, biodiversity)
HarmsworthG@landcareresearch.co.nz

John Innes (Native birds)
InnesJ@landcareresearch.co.nz

Dr Dave Choquenot (Biodiversity projects)
ChoquenotD@landcareresearch.co.nz

Conservation and Māori
<http://www.doc.govt.nz/Community/005~Conservation-and-Maori/index.asp>

Ngā Whenua Rahui
Department of Conservation
PO Box 10-420
Wellington
04 471 3107
0800 112 331

Contestable ministerial fund set up in 1991 to assist Māori landowners protect indigenous ecosystems on their land while retaining tino rangatiratanga (ownership and control). Has protected 112 000 hectares of ngahere through kawenata (covenants) to date. Fund administered by Ngā Whenua Rahui committee and serviced by DOC.
<http://www.doc.govt.nz/Community/007~Conservation-on-Private-Land/003~Nga-Whenua-Rahui.asp>





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Funding for projects

Foundation for Research, Science and Technology (FRST)
<http://www.frst.govt.nz/>

Māori research funding (FRST)
<http://www.frst.govt.nz/maori/index.cfm>

Ngā Whenua Rahui (Department of Conservation)
<http://www.doc.govt.nz/Community/007~Conservation-on-Private-Land/003~Nga-Whenua-Rahui.asp>

Mātauranga Kura Taiao Fund
Contestable fund to support hapū/iwi initiatives to increase their capability to retain, protect, and promote traditional Māori knowledge and its use in biodiversity management.
Contact Ngā Whenua Rahui
mtemar@doc.govt.nz

Nature heritage fund
<http://www.doc.govt.nz/Community/007~Conservation-on-Private-Land/001~Nature-Heritage-Fund.asp>

Biodiversity condition fund
<http://www.doc.govt.nz/Community/007~Conservation-on-Private-Land/Biodiversity-Condition-Fund-and-the-Biodiversity-Advisory-Service-Fund.asp>

Biodiversity advice fund
<http://www.doc.govt.nz/Community/007~Conservation-on-Private-Land/Biodiversity-Condition-Fund-and-the-Biodiversity-Advisory-Service-Fund.asp>

Queen Elizabeth II Trust is an independent organisation established to protect open space on private land
<http://www.doc.govt.nz/Community/007~Conservation-on-Private-Land/Queen-Elizabeth-II-National-Trust.asp>

Regional Councils environmental funding initiatives
<http://www.localgovt.co.nz/>

EnvironFunz
www.envirofunz.org.nz

