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# **The Voice(s) of Māori in Integrated Freshwater Management**

## **A Case Study in the Manawatū River Catchment in New Zealand**

A dissertation presented in partial fulfilment of  
the requirements for the degree of

**Doctor of Philosophy**  
in **Ecological Economics**

at Massey University, Palmerston North,  
Aotearoa/New Zealand

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## **ETHICAL APPROVAL**

Ethical approval for the research was obtained under the IFS project in principle and specifically on two further occasions. The first one covered collaboration with all iwi/hapū and was obtained on 23 November 2011.

The second one concerned the addition of the Te Kāuru hapū pilot development and was granted in March 2013. The following statement qualifies the approval given:

“This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University’s Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O’Neill, director (Research Ethics), telephone 06 350 5249, e-mail [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz)”.

All iwi/hapū members named in the document were participants in the study and learning process and have given their consent to be identified by name.

## ABSTRACT

Freshwater of good quality and quantity is fundamental to life. The challenge of our times is to manage freshwater and to find innovative ways to integrate ecological, economic, social and cultural interests in its use so that future generations will continue to have access to its life-supporting capacity. This research focuses on cultural understanding of water and how it influences water management. The study explores how the voice of Māori (the indigenous people of New Zealand) is heard in collaborative multi-stakeholder approaches to freshwater management. The voice of Māori in the context of this study is defined as the contributions made by Māori while exercising rights granted under the Treaty of Waitangi signed in 1840, to participate in the management of their taonga (treasures including natural resources).

The trans-disciplinary and cross-cultural research uses 'verstehen' (creating meaning) as the epistemology and method to explore four questions: 1) How are cultural values reflected in the process of action planning, funding and implementation?; 2) What gives voice in the process?; 3) Voice in short-term collaborations - how do Mediated Modelling and other tools support the voice of Māori?; and 4) Voice and iwi/hapū river management planning - how could intergenerational plans relate to the voice of Māori? The case study for the research was based in the Manawatū River catchment in the lower North Island of New Zealand. It took place between October 2010 and November 2013. Four iwi/hapū (tribes/sub-tribes) from the catchment, namely Te Kāuru Eastern Manawatū River Hapū Collective, Rangitaane O Manawatu, Ngāti Kauwhata (supported by Taiao Raukawa) and Muaūpoko Tribal Authority participated in a collaborative process involving multiple stakeholders tasked with finding solutions to water quality and quantity issues impacting the catchment.

The case study culminated in a 'framework for voice' as a tool to facilitate a deeper level of understanding of cultural values and thereby improve dialogue in future collaborations in integrated freshwater management involving Māori and non-Māori. The study concludes that innovative changes to integrated freshwater management can evolve over time as new thinking emerges at the interface between cultures, their worldviews and values.

Key words: integrated freshwater management, voice of Māori, worldviews, values, multi-stakeholder collaborations, intergenerational planning and vision

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## WRITING CONVENTIONS AND GLOSSARY

Unless stated otherwise, the Te Aka Online Māori Dictionary, 2003-2014 ([www.maoridictionary.co.nz](http://www.maoridictionary.co.nz)) was used for the translation of Māori words. Macrons are used in line with the Te Aka Online Māori Dictionary, unless the original text cited does not follow this convention. Example: the Manawatu River Leaders' Accord did not use macrons, the Manawatū River Leaders Forum Action Plan does.

Iwi/hapū (tribe/sub-tribe) – this convention was adopted in line with a choice made by participating iwi/hapū<sup>1</sup> during the action planning process. It recognises that participating groups followed different institutional models.

<b>ahi kā</b>	burning fires of occupation, term for people who maintain a marae
<b>ahi-kā-roa</b>	long burning fires of occupation – quasi title to land
<b>ako</b>	learn, teach
<b>ariki</b>	paramount chief
<b>aroha</b>	compassion, love, sympathy, empathy, affection, charity
<b>aronga</b>	direction, definition, focus worldview (Royal, 2002)
<b>atua</b>	ancestor with continuing influence, god, demon, supernatural being
<b>awa</b>	river
<b>hapū</b>	kinship group, clan, tribe, sub-tribe - section of a large kinship group – also being pregnant
<b>hīkoi</b>	walk, march, journey
<b>hui</b>	gathering, meeting, assembly
<b>hui-ā-iwi</b>	In the context of this dissertation: meetings between iwi/hapū members and the regional council
<b>inoi</b>	prayer, plea, request
<b>iwi</b>	extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and link to a particular canoe. Also: bones
<b>kai</b>	food
<b>kaimoana</b>	seafood
<b>kaitiaki</b>	guardian, keeper “A <b>kaitiaki</b> is a person, group or being that acts as a carer, guardian, protector and conserver” ( <a href="http://www.teara.govt.nz">www.teara.govt.nz</a> )
<b>kaitiakitanga</b>	“ <b>Kaitiakitanga</b> means guardianship, protection, preservation or sheltering. It is a way of managing the environment, based on the traditional Māori world view” ( <a href="http://www.teara.govt.nz">www.teara.govt.nz</a> )
<b>karakia</b>	incantation, ritual chant, blessing, prayer
<b>karanga</b>	formal call
<b>kaumātua</b>	elder, adult
<b>kaupapa</b>	topic, matter for discussion, plan, project, proposal, agenda, programme
<b>kawa</b>	protocol followed on a marae, varies between hapū and iwi
<b>kāwanatanga</b>	government, authority
<b>kete</b>	basket

<sup>1</sup> Te Kāuru, the Manawatū River Eastern Hapū Collective, would have preferred a hapū/iwi convention, given their hapū focus. However, they agreed to adopt the iwi/hapū convention preferred by the other groups as outlined in chapters 4 and 7.

<b>kōrero</b>	speech, narrative
<b>kōrerorero</b>	dialogue, conversation
<b>kōrero tahi</b>	one speaker at the time
<b>kotahitanga</b>	unity
<b>mahinga kai</b>	garden, cultivation, food gathering places
<b>mana</b>	prestige, authority, control, power, influence, status, spiritual power, charisma – <i>mana</i> is a supernatural force in a person, place or object
<b>mana tangata</b>	power and status accrued through ones leadership talents
<b>mana tūpuna</b>	power through descent
<b>manaaki</b> <b>manaakitanga</b>	hospitality, helpfulness, kindness
<b>mana rangatira</b>	chiefly authority
<b>mana whenua</b>	territorial rights, power from the land
<b>Māori (uppercase)</b>	indigenous, belonging to Aotearoa/New Zealand
<b>māori (lowercase)</b>	native species, freshwater, natural material, normal
<b>marae</b>	meeting place, courtyard, open space in front of meeting house, also used to describe the whole complex of buildings around the courtyard
<b>māra</b>	garden, cultivation
<b>mātauranga</b>	knowledge, wisdom
<b>maunga</b>	mountain
<b>mauri</b>	life principle “Mauri is an energy which binds and animates all things in the physical world. Without mauri, mana cannot flow into a person or object...” (www.teara.govt.nz – accessed 01/02/2014)
<b>Pākehā</b>	New Zealander of European descent, fair skinned race other than Māori
<b>pōwhiri</b>	official welcome ceremony
<b>pūtaiao</b>	science
<b>rangatira</b>	chief
<b>rangatiratanga also</b> <b>tino rangatiratanga</b>	sovereignty, chieftainship, right to exercise authority, chiefly autonomy, self-determination, self-management, ownership
<b>rā</b>	sun, day
<b>reo</b>	voice, language
<b>ringa kaha</b>	obtaining land by force, occupation by force of arms (Mead, 1997)
<b>rohe</b>	boundary, district, region, area
<b>rongoa māori</b>	natural remedy, traditional treatment, Māori medicine
<b>take raupatu</b>	conquest, land taken illegally, dispossess
<b>take tuku</b>	gift
<b>take tupuna</b>	inheritance
<b>takiwā</b>	district, area, territory (South island)
<b>tangata</b>	man, person, human being
<b>tāngata</b>	people, men, human beings
<b>tangata whenua</b>	people of the land
<b>taniwha</b>	spiritual or actual guardian usually abides in water
<b>taonga</b>	treasure, anything prized
<b>tauutuutu</b>	form of protocol used for ceremonial greeting by certain iwi groups, Tainui, Raukawa
<b>tawhito</b>	old
<b>te ao Māori</b>	the world of Māori
<b>tiaki</b>	looking after, protect, keep safe – also: mentoring (G.H. Smith – Chapter 3)
<b>tikanga</b>	correct procedure, custom, meaning, authority, control
<b>tipu</b>	grow
<b>tohunga</b>	chosen expert, skilled person, priest
<b>tokotoko</b>	talking stick
<b>tupuna/tipuna</b>	ancestor

<b>tūpuna/tīpuna</b>	ancestors
<b>ūkaipō</b>	mother (sometimes used for homeland, mother earth)
<b>utu</b>	revenge, reciprocity – “an important concept concerned with the maintenance of balance and harmony in relationships between individuals and groups and order within Māori society, whether through gift exchange or as a result of hostilities between groups”
<b>wāhi tapu</b>	sacred site
<b>wai</b>	water
<b>waiata</b>	song, chant, psalm
<b>wai-herehere</b>	captive, imprisoned water
<b>wai māori</b>	freshwater
<b>wai-mārama</b>	clear, transparent water
<b>wai-mate</b>	lifeless water, water cut off from original flow
<b>waiora</b>	health soundness healing or spiritual waters (Te Kāuru use)
<b>wairua</b>	spirit, soul, quintessence – spirit of a person which exists beyond death (literal translation: two or twin essences)
<b>waka</b>	canoe, vehicle, medium
<b>whakaaetanga kōrero</b>	constructive dialogue (Cram, et al., 2004 – Chapter 3)
<b>whakamā</b>	shame, embarrassment
<b>whakawhitwhiti kōrero</b>	Dialogue, exchange, ideas
<b>wānanga</b>	to meet and discuss in depth, seminar, forum, institute
<b>whāngai</b>	foster, nurture, adopt, nourish
<b>whakapapa</b>	genealogy
<b>whakataukī</b>	proverb, saying, aphorism
<b>whakawhanaungatanga</b>	process of establishing relationships
<b>whānau</b>	extended family, family group – born, also to give birth
<b>whanaungatanga</b>	relationship, kinship, sense of family connection - a relationship through shared experiences and working together which provides people with a sense of belonging. It develops as a result of kinship rights and obligations, which also serve to strengthen each member of the kin group. It also extends to others to whom one develops a close familial, friendship or reciprocal relationship
<b>whare</b>	house, building
<b>whenua</b>	land, country, nation – also placenta

## Atua

Haumiatiketike	Guardian of uncultivated foods
Io	Supreme being
Mahoranuiātea	Guardian associated with clouds (Ngāi Tahu)
Mākū	Guardian of moisture (Ngāi Tahu)
Papatūānuku	Earth Mother
Ranginui	Sky Father
Rakinui, Raki	Sky Father (Ngāi Tahu)
Rongomātāne	Guardian of cultivated foods
Tāne, Tāne-Mahuta	God of the forest and inhabitants
Tangaroa	Guardian of the ocean and inhabitants
Tāwhirimātea	Guardian of the sky and winds
Tūmatauenga	Guardian of man and war

## Whakataukī

Kei te ora te wai, kei te ora te whenua, kei te ora te tangata	If the water is healthy the land and the people will be nourished (translation used by Manawatū River Leaders' Forum) Grammatically correct translation: The water is healthy, the land and the people are nourished
E huahua te kai pai, he wai te kai pai	Humans cannot survive without freshwater
Ko au te awa ko te awa ko au	I am the river and the river is me
He rākau ka hinga i te mano wai	Value life while you have it
E kore a Parawhenua e haere ki te kore a Rakahore	Water wouldn't move if it wasn't for rock – Partnership in ventures is essential for success
He pukenga wai, he pukenga tangata	A large gathering of people is like water flooding the land
He manga wai koia kia kore e whitikia?	Nothing ventured, nothing gained
Ki te ora te kāuru, ka ora te rere, ka ora te pūwaha	Should the river source be healthy and well, then so should (shall) be its flow and its tributaries even to the exit to the sea

## LIST OF ABBREVIATIONS

AI	Appreciative Inquiry
BAU	Business as Usual
BBN	Bayesian Belief Network
CCG	Catchment Care Group
CHI	Cultural Health Index
DOC	Department of Conservation
EE	Ecological Economics
EERNZ	Ecological Economics Research New Zealand
F&B	Forest and Bird
F&G	Fish & Game
FRST	Foundation for Research, Science and Technology (replaced by MBIE)
GIS	Geographic Information System
HDC	Horowhenua District Council
HRC	Horizons Regional Council
id	inter-disciplinarity
IFS	Integrated Freshwater Solutions
KPI	Key Performance Indicator
LAWF	Land and Water Forum
LGA	Local Government Act 2002
MBIE	Ministry for Business, Innovation and Employment
MDC	Manawatū District Council
MfE	Ministry for the Environment
MIMES	Multi-Scale Integrated Models of Ecosystem Services
MoU	Memorandum of Understanding
MRLA	Manawatū River Leaders' Accord
MRLF	Manawatū River Leaders' Forum
Muaūpoko	Muaūpoko Tribal Authority
N/A	Not applicable
Ngāti Raukawa	Ngāti Raukawa ki te Tonga
NGO	Non Government Organisations
NPS	National Policy Statement
NZ	New Zealand
NZP	New Zealand Pharmaceuticals
PCE	Parliamentary Commission for the Environment
PNCC	Palmerston North City Council
RiVAS	River Values Assessment System
ROM	Rangitaane O Manawatu
RMA	Resource Management Act 1991
RMP	River Management Plan
RMPF	River Management Planning Framework
SLUI	Sustainable Land Use Initiative
SOT	State of the Takiwā (area, district)
STP	Sewage Treatment Plant
td	trans-disciplinarity
TDC	Tararua District Council
Te Kāuru	Te Kāuru Manawatū River Eastern Hapū Collective
TLA	Territorial Local Authorities
TMI	Tanenuiarangi Manawatu Incorporated



## FIGURES

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Unless stated otherwise in the text, all Figures, Tables and Boxes are my work.