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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 conservator” ( <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.

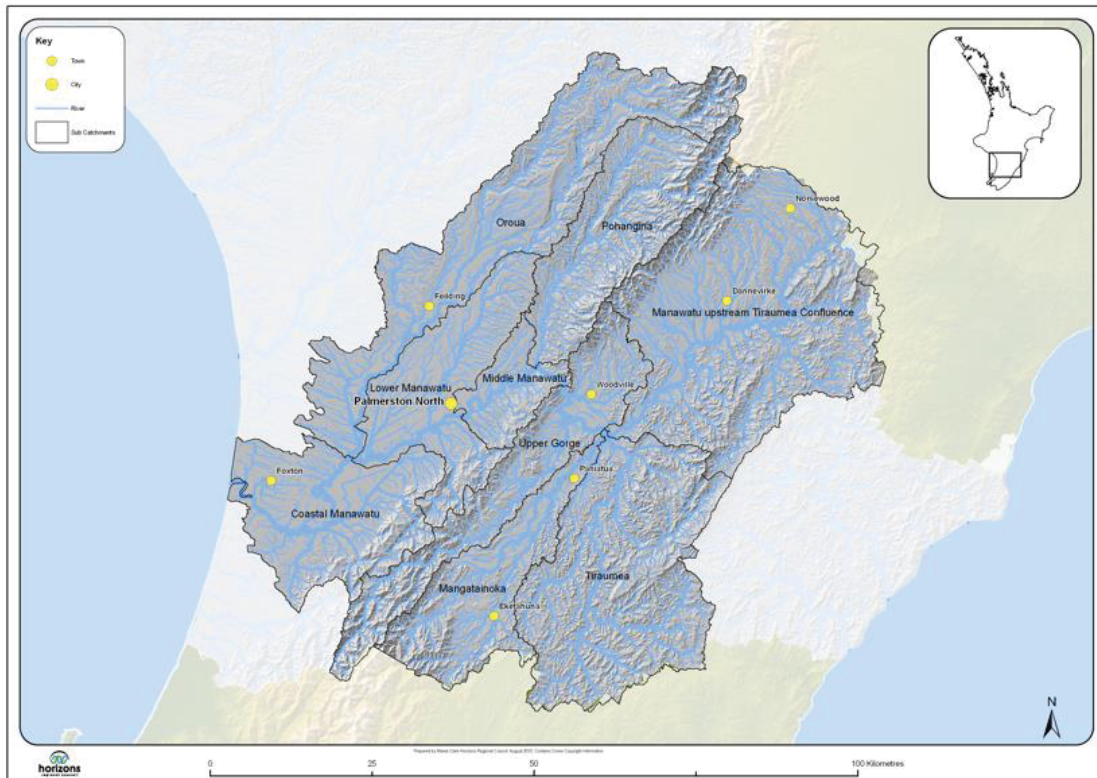
## CHAPTER 1. INTRODUCTION – CONTEXT, PROCESS, AND CONTENT

*The mere fact of being where I am, changes me and changes everything else. Discovery is not seeing what there is (that is impossible at any level), but rather allowing oneself to converge towards a continually, freshly created reality. I am no longer what I was, but what I shall be as a consequence of everything else ceasing to be what it was and becoming what it will be in a constantly renewed dialectical synthesis (Max-Neef, 1982/1992, pp. 155/6).*

This dissertation represents an inquiry and reflection on how the voice of Māori (the indigenous people of New Zealand) is heard and captured in integrated freshwater management. The purpose of the research is to make recommendations on how to improve the dialogue between Māori and non-Māori in other integrated freshwater management collaborations. Voice in the context of the research represents contributions made by Māori while exercising their right to participate in the management of freshwater.<sup>2</sup> The research is based on one case study in the Manawatū River Catchment (refer to map in Figure 1.1), involving Ngāti Kauwhata (supported by Taiao Raukawa), Muaūpoko Tribal Authority (Muaūpoko), Rangitaane O Manawatū (ROM) and Te Kāuru Manawatū River Eastern Hapū Collective (Te Kāuru). It draws on insights and reflections from three distinctive research phases over a 3-year period between 2010 and 2013. It uses ‘verstehen’ (the process of understanding in the sense of discovering meaning) as an underlying epistemology and method in arriving at a framework for voice. The framework positions the voice of Māori in the context of location, history, worldviews, and values. It also links the voice in short-term multi-stakeholder collaborations with long-term intergenerational vision and planning. Chapter 1 provides an introduction to the context and process of the study as well as an overview of its contents.

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<sup>2</sup> The following is the full definition of ‘voice’ as stated in the online Oxford Dictionary (2010) under 3b: “voice originally a right to vote but also a right or power to take part in the control or management of something; a right to express a preference or opinion; a say, to have voice in”. ‘Voice’, singular, was originally chosen based on the assumption that there was a collective voice of Māori in expressing cultural values related to freshwater. As the case study unfolded it became clear that there are multiple voices. This is reflected in the later chapters. A conscious decision was made, not to change the original language in the earlier chapters to share the insights from the process of ‘verstehen’ (understanding, creating meaning). However, the original title of the dissertation has been changed from ‘voice’ to ‘voice(s)’ to reflect the multitude of perspectives and resulting voices.



**Figure 1.1: Map of the Manawātū River Catchment**  
**Source:** Horizons Regional Council

## 1.1 RESEARCH CONTEXT

My personal interest in freshwater started in the summer of 2008/2009 when I experienced the lack of freshwater first hand during a horse trek through the Patagonian foothills of the Andes. On two occasions our group was faced with an acute lack of water. Where there had been plenty of water during a previous ride three years earlier, on this occasion, the water in the streams had either completely dried up or was not fit for consumption due to the high content of animal waste. According to Carol Jones, the local guide and granddaughter of one of the first settlers in the area around San Carlos de Bariloche, a combination of changing weather patterns and overstocking by overseas landowners was putting more pressure on the land than was wise (Jones, January 2009, pers. comm.). That summer, thousands of animals perished due to lack of water.

Back in New Zealand, my home country by choice, I realised that freshwater management had also become very important. The mounting pressure to increase primary production in order to bolster exports had led to ever intensifying debates on land use, water rights, irrigation, and water storage (Rodgers, 2009). At the same time, increasing nutrient run-off from farms, and more wastewater disposal from industrial

and urban dischargers, had resulted over time in water quality degradation (Abraham & Hanson, 2004; Monaghan et al., 2006; OECD, 2008; Parkyn, Matheson, Cooke, & Quinn, 2002; Quinn, Cooper, Davies-Colley, Rutherford, & Williamson, 1997). This was now becoming visible through the numbers of signs warning people not to gather food or swim in rivers and lakes.

Over the following months, I had many conversations about water with representatives from organisations involved in aspects of water management. Most of them touched on economic value and management issues. A frequently expressed view was that there was no shortage of water per se. Instead management practices were perceived to be lacking. Other conversations concerned recreational aspects of water, the need to conserve water and restore rivers and lakes to protect biodiversity. As Murray Rodgers pointed out in his book on the waters of Canterbury – water had become a ‘wicked problem’ (Rodgers, 2009).

A different appreciation of water emerged in July 2009 when I attended the Indigenous Legal Water Forum in Wellington. It was organised by Jacinta Ruru from the University of Otago, and explored indigenous peoples’ rights to freshwater. During the conference my approach to water as ‘just another resource to be managed’ was fundamentally challenged. Water was presented as more than a commodity to be taken for granted. Instead it was described as the essence of life. There is no substitute for water. Ultimately, the conference provided the inspiration to approach freshwater management from the perspective of indigenous values. I wondered to what extent the voice of Māori is heard and how Māori cultural values are reflected in freshwater management in New Zealand.

Three parallel processes created the opportunity for this research. In 2009, the New Zealand Government announced its ‘Fresh Start for Fresh Water’ initiative. Freshwater was deemed to be the number two environmental agenda item after climate change. On a national level, the Land and Water Forum (LAWF), a multi-stakeholder collaboration, was formed to develop consensus-based recommendations for better freshwater management in New Zealand (Office of the Minister for the Environment & Office of the Minister of Agriculture, 2009).

At the same time, Ecological Economics Research New Zealand (EERNZ)<sup>3</sup> identified an opportunity for a regional action research project on collaborative and adaptive

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<sup>3</sup> EERNZ is a research institute based in the College of Humanities and Social Sciences at Massey University in Palmerston North, New Zealand.



freshwater management in the Manawatū River Catchment. Horizons Regional Council (HRC), the agency tasked with water management under New Zealand's Resource Management Act from 1991 (RMA) agreed to be a partner in the research. One goal of the Integrated Freshwater Solutions (IFS) action research project was outlined as follows in the 2009 concept presentation to the Foundation of Research Science and Technology (FRST<sup>4</sup>): "This project team will develop a tool to assist regional councils make effective management decisions and gear them towards proactively maintaining and/or improving freshwater ecosystem services." (van den Belt, 2009, p. 3, unpublished).

One of the most significant aspects of the IFS project was the involvement of initially three and ultimately four iwi/hapū (tribe/sub-tribe) groups who, up to this point, had not collaborated jointly in managing the health of the Manawatū River. Each of the initial three groups, ROM, Ngāti Kauwhata, and Muaūpoko, took the opportunity to lead a subproject to build local research capacity in addition to participating in the regional overall IFS project. Te Kāuru, formed in April 2010, joined the overall IFS project in October 2010.

The third parallel process was triggered by the publication of a report by the Cawthron Institute in August 2009. The report showed extremely bad dissolved oxygen values for the Manawatū River making it the worst river measured in the study (Clappcott & Young, 2009). This caused a media and resulting public outcry. Over night the Manawatū River emerged 'among worst in the West' (Chapman & Jackson, 2009; Morgan & Burns, 2009). And while quotes from the study had been taken out of context and inconsistencies in the study were identified and subsequently rectified in a second publication (Young & Clappcott, 2010), the public debate on the state of the river prompted the Chairman of HRC to call a leaders' summit. This summit, held on 15 February 2010, led to the formation of the Manawatū River Leaders' Forum (MRLF), which subsequently developed a Leaders' Accord and committed to develop an action plan to improve the water quality of the Manawatū River.

In August 2010, since they were both working with the same stakeholders, IFS and MRLF agreed to combine efforts.<sup>5</sup> The collaborative action planning process for the Manawatū began in October 2010. This was also the commencement date for the PhD research that was to be nested in IFS. The PhD research was funded through a Te

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<sup>4</sup> FRST has since been replaced by the Ministry for Business, Innovation and Employment (MBIE).

<sup>5</sup> A detailed description of the decision making process for IFS and MRLF is part of Chapter 4.

Tipu Pūtaiao Fellowship, granted by FRST/MBIE (Ref.: MAUX1006) as from 1 January 2011. In order to develop recommendations on how to improve dialogue in future integrated freshwater collaborations involving Māori and non-Māori, it addressed the following four questions:<sup>6</sup>

- How are cultural values reflected in the process of (and outputs from) action planning, funding, and implementation?
- What gives voice in the (collaborative) process?
- Voice in short-term collaborations – How do Mediated Modelling<sup>7</sup> and other tools support the voice of Māori?
- Voice and iwi/hapū river management planning – How could intergenerational plans relate to the voice of Māori?

## **1.2 RESEARCH PROCESS**

Following the description of the background to the research, this section outlines the initial approach for the IFS and PhD research project. This is followed by a brief description of the actual evolution of the research which ultimately led to a lesser degree of integration between IFS and PhD research.

### **1.2.1 Research Process – The Three Phases of the Research**

The IFS action research was originally structured around three key phases. Action research allows a reflective, interactive, and iterative approach to research aimed at addressing real life issues. It is based on the idea that research should move beyond understanding the world, into changing the world. Being participative, interactive, and solutions oriented, the research enables the participants to bring about the change. The researcher facilitates the process (Kemmis, 2001; Reason & Bradbury, 2001; Munford & Sanders, 2003; Myers, 2009). Collaborative,<sup>8</sup> adaptive action research is structured around cycles of visioning, planning, doing, and reviewing. It may draw on different types of knowledge, including science, traditional knowledge, and experiences from the life-world. Exercising diligence in documenting states before and after interventions, the researcher has the mandate to adapt the research process in line

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<sup>6</sup> At the outset of the research, there were only three research questions. The first question was adapted in 2011 to include funding and implementation. The second question remained the same throughout the research. Question 3 was expanded to include other tools. In late 2012, Question 4 was added as the opportunity to share insights from the river management planning process arose.

<sup>7</sup> Mediated Modelling as a method to support decision making in complex situations was at the heart of the IFS project. Mediated Modelling is described in more detail in Chapter 2, p. 31, and Chapter 8, pp. 203-205.

<sup>8</sup> Note the terms ‘participative’ and ‘collaborative’ are being used interchangeably.



with changing context. This mandate is mirrored by an obligation to transparency (van den Belt, 2004).

In the original IFS research plan, the first year of the IFS project was aimed at a literature review, the building of relationships with stakeholders, and launching the iwi/hapū subprojects. The second year was to be dedicated to a series of workshops. The purpose of these multi-stakeholder workshops was to use Mediated Modelling as a method to facilitate the development of solutions for collaborative and adaptive freshwater management in the Manawatū River Catchment. The third phase was about consolidating the research outcomes. The PhD research was to be nested in the overall IFS project and to mirror the pattern of the host project. The specific focus was to establish whether Mediated Modelling is a suitable tool to make the voice of Māori heard in the solution development process.

The collaboration between IFS and MRLF, as agreed in August 2010, led to an immediate adaptation of the research approach. The workshops planned for the second year (2011/12) began in October 2010 and ran through to April 2011. This allowed little time for relationship building among stakeholders before the commencement of the workshops and virtually no time for an upfront literature review. As a consequence, the PhD research too, had to be adapted in line with changing context. While it remained linked with the IFS project in principle it followed the voice of Māori beyond IFS.

Phase I of the PhD research was 100% embedded in IFS, capturing the voice of Māori through the combined IFS/MRLF workshop process (for more details on this phase refer to Chapter 4). The second phase, July 2011 – November 2013, followed the voice of Māori through the funding and implementation phase of the action plan which was led by MRLF (Chapter 5). The third phase, July 2012 – November 2013, was about the iwi/hapū River Management Planning Framework (RMPF) process (Chapter 6), which was initiated by HRC and iwi/hapū in July 2012.

Insights from phases II and III of the research are based on generic observations concerning all iwi/hapū groups during the ongoing MRLF meetings and two further IFS workshops. Further insights were gained from the collaboration with Te Kāuru. The collaboration with Te Kāuru, who invited me to join their management committee in July 2012, provided insights through actual participation in on-the-ground activities. While there was some time overlap between phases II and III, they were distinctively different.

### 1.2.2 Research Approach – Case Study

The research was cross-cultural and trans-disciplinary. It navigated between the cultures of Māori, Pākehā and my grounding in the German culture – which is western in generic terms, and German in its specifics. In line with good practice in cross-cultural research, the research was set up as a partnership, with the aim of being mutually beneficial (Smith, L.T., 1992a; Spoonley, 2003). In the tradition of Ecological Economics as a trans-disciplinary research field, the research is applied (Funtowicz & Ravetz, 2003). It draws to varying degrees on different disciplines such as history, philosophy, anthropology, and Mātauranga Māori (knowledge, wisdom of the Māori people).

The case-study format was chosen to document and connect insights from the three phases of the research as the basis for developing recommendations for future cross-cultural collaborations in freshwater management. The case-study approach is considered to be appropriate when ‘how’ and ‘why’ questions are being asked and the researcher has limited control over events (Myers, 2009; Yin, 2009). As outlined in the previous section, the research agenda for phase I was set by IFS, the agenda for phase II was driven by MRLF, and phase III was carried out in collaboration with Te Kāuru. The initial intent had been to take control of the research process with Te Kāuru. However, it soon became apparent that by not insisting on a western approach, a different experience might emerge. Consequently, I followed the lead of Te Kāuru on their preferred wānanga (seminar, forum) approach. Details about content and follow up were developed in partnership.

The research questions guided the collection of data over the 3-year period. Evidence for the case study originated from observations, interviews, documents, newspaper articles, reports, and e-mails. Phase III of the research also contains participant observations resulting from the collaboration with Te Kāuru.

The documentation follows three steps of describing context, process, and contents for each phase. Key observations from each phase, as they relate to the voice of Māori, are then compared with findings from the literature. Personal reflections and feedback from participants contribute to the process of ‘verstehen’ (understanding).

### 1.2.3 An Epistemology of 'Verstehen'

An epistemological position of 'verstehen'<sup>9</sup> (understanding, creating meaning) was adopted due to growing awareness during Phase I of the case study that participants, including myself, struggled with understanding the voice of Māori. Understanding, as a routine process in the life-world,<sup>10</sup> is based on individuals testing new information against implicit assumptions on how things, or the world in general, work. In this day-to-day context, people assume that their view is valid and by and large shared by others (Hitzler, 1988).

In research, 'verstehen', as an epistemology and method has a long tradition, in both the study of texts and documents (hermeneutics) and the study of human action in contemporary social contexts (David, 2010). 'Verstehen' in the tradition of Max Weber, endeavours to reconstruct the objective and subjective rationality of typical actors<sup>11</sup> in the context of particular social and historical contexts. Objective 'verstehen' is based on observable regularities in a culture<sup>12</sup>. Subjective rationality is the motivation of actors seen in the context of not only the objectively observable, but also that of the historic, contextual moment in time (David, 2010; Geertz, 1974; 1994; Weber, 1978). "Thus, by means of the activity of understanding (Verstehen) the aim is to grasp the meaning and purpose of human and social events (i.e. the relationship of human being with his entire environment), giving attention to the knowledge of the past and present" (Gonzalez, 2003, p. 34). The method of 'verstehen' is described in more detail in Chapter 3.

The approach to 'verstehen' in this study, draws on 'verstehen' in a life-world context (the case study), and compares it with 'verstehen' in the literature, including both, cultural concepts and language. 'Verstehen' is seen as an ongoing process that shapes past and future understanding at the same time. As new insights occur, they can either confirm, or lead to a different understanding of events and actions. While understanding helps to enable conversations on a deeper level, absolute 'Verstehen' will always remain an elusive target as the concepts themselves change their meaning over time, as do the contexts and the actors (Geertz, 1994; Hitzler, 1988; Max-Neef 1982/1992).

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<sup>9</sup> In German, the verb 'verstehen' captures the process of understanding or creating meaning. 'Verstehen', as a noun with a capital 'V', signifies the destination.

<sup>10</sup> The term life-world (Lebenswelt) is attributed to the phenomenologist Husserl. The life-world is defined by the ongoing lived experiences, activities and contacts that make up the world of an individual or collective (Hirsch Hadorn, et al., 2008).

<sup>11</sup> A typical actor represents a theoretical actor, an abstraction of actors sharing in collective meaning (Weber, 1981/2010).

<sup>12</sup> For the purpose of this study, culture is understood to "consist of socially established structures of meaning" (Geertz, 1994, p.219).

The actual research started with the IFS workshops. This provided an opportunity to listen to the voice of Māori in interaction with other stakeholders. The analysis of workshop material helped identify aspects in the process of understanding the voice of Māori, which ultimately culminated in a framework for voice. This in turn provided the basis for literature search and discussion. It has been a deliberate decision to align the structure of the dissertation with the unfolding of the research process. This approach shows the shifts between deduction and induction in the research process.

The dissertation is written with both a western and a Māori audience in mind. It aims to share the challenges of learning to understand the voice of Māori in the context of a Māori world. Relating to what is said from a Māori point of view, rather than a western point of view only, opens an opportunity to think about things differently. The insights from the research are captured in the above mentioned framework for voice, a tool to guide others in the process of *verstehen* in a cross-cultural context.

Given the trans-disciplinary and cross-cultural nature of the research, plain English is being used as much as possible to provide consistency. Given the close collaboration with iwi/hapū over the 3-year period, I have been encouraged to write this dissertation not merely from the head, but also from the heart. According to Reverend Marsden, “Maoritanga is a thing of the heart rather than the head. For that reason analysis is necessary only to make explicit what the Maori understands implicitly in his daily living, feeling, acting and deciding” (1975, p.191). The next section of this chapter provides an outline of the contents.

### **1.3 DISSERTATION – OUTLINE OF CONTENTS**

As outlined above, the dissertation is structured in line with the evolution of events over the 3-year period. Chapters 1–3 provide the context and process for the research. Chapters 4–6 describe the three phases of the case study. They provide the content and insights that informed the development of the framework for voice. The framework in turn guides the discussion and conclusions in Chapters 7–9.

#### **Chapter 2 – Why Water and the Voice of Māori**

This chapter explores aspects of integrated freshwater management. It describes a range of different angles that could be taken to approach the topic. It provides more insight into what led up to the research and the particular interest in the voice of Māori in integrated freshwater management. Two continua are proposed to frame the research: one locates the research geographically on the local to catchment level; the other relates freshwater management to underlying worldviews along a range from

exploitative utilitarian to spiritual/reciprocal approaches. Last, the chapter explains why the field of Ecological Economics was chosen as the basis from which to conduct the research.

### Chapter 3 – Research Questions – Underlying Assumptions and Research Approach

This chapter addresses the research approach in more detail. It builds on the outline of the research given in Chapter 1, starting with the overall research context, research questions, and underlying assumptions. A brief discussion of two dilemmas touches on potential pitfalls in collaborative research from a PhD perspective. The first dilemma recognises the fine line between research and consulting or project management. The second concerns the production of knowledge and the originality of thought. The next section looks at ethical and practical questions of doing research with Māori as a non-Māori. It positions the research in relationship to Māori. This is followed by the choice of the case study format to record insights from the research. The epistemology and method of ‘verstehen’ which underpinned the research is explained in more detail.

### Chapter 4 – Case Study Phase I: IFS/MRLF – The Action Planning Workshops

The focus of this chapter is on observations from the IFS/MRLF workshops. It starts with the historical and the more immediate contexts that led up to the action planning workshops. Tribal history explains the significance of the pan-iwi/hapū collaboration in this case study. The context leading up to the case study and the collaboration between IFS and MRLF are described next. The different stakeholder groups, their interest/power profile, and their levels of participation in the workshop process are presented. These are followed by a description of the actual process of the workshops, which culminated in the development of an action plan for the Manawatū River. It looks both at the voice of Māori in the process and at how cultural values are reflected in the solutions and in the overall action plan. Mauri (life force), mana (authority, prestige, power), kaitiakitanga (guardianship), and tino rangatiratanga (self-determination) are identified as core concepts for a framework for the voice of Māori in integrated freshwater management. The question of what gives voice in the collaborative process is discussed based on a combination of quantitative analysis and stakeholder feedback. The chapter draws on literature for the historical background. Pre-, mid-, and post-workshop surveys, observations from the workshops, and supporting documents form the basis of the case study itself.

## Chapter 5 – Case Study Phase II: MRLF (IFS) – Funding and Implementation of Actions

Following the action-planning phase, Chapter 5 summarises observations from the funding and implementation phase over the period July 2011 – November 2013. It looks in particular at the Fresh Start for Fresh Water funding (Ministry for the Environment, 2011a) and the voice of iwi and hapū in that process. It outlines the challenges in the implementation of the 32 iwi/hapū-related actions in the plan. The initiation of hui-ā-iwi (meetings between the iwi/hapū MRLF participants and HRC) is described and put in the context of overall events. It also shows how the need to action the iwi/hapū tasks led to the instigation of a RMPF process. The chapter is divided into two parts: the first describes what happened on the level involving all iwi/hapū; the second draws on the direct collaboration with Te Kāuru in the implementation of actions. It briefly touches on the formation of Te Kāuru in 2010, and on ongoing progress in representing the interests of hapū in the eastern part of the Manawatū Catchment. This includes the successful application for community funding from the Fresh Start for Fresh Water Fund.

## Chapter 6 – Case Study Phase III: – Following the Voice of Māori through the River Management Planning Framework Process

This chapter is dedicated to the RMPF process. It builds on the initiation of the process as described in Chapter 5. The narrative follows three different strands of events: the first concerns the pan-iwi RMPF and describes what led to the initiative; the second looks at the wānanga (seminar, forum) process deployed by Te Kāuru who started the pan-iwi process at the source of the river; the third documents the attempt to develop a pilot river management plan with Ngāti Parakioro/Ngā Ruahuihui, a hapū from the Te Kāuru collective. The narrative then returns to Te Kāuru's RMPF process and ultimately the pan-iwi initiative. Insights into the dynamics between iwi and hapū about river management are described and prompt the question at what level – iwi or hapū – councils need to engage. The chapter also outlines the differences in approaches chosen by the four iwi/hapū groups for the RMPF process. It reflects on how the outputs from the different processes can be seen as either a success or failure in developing the RMPF.

## Chapter 7 – Framework for Voice Part I: Whose Voice, Worldviews, and Values?

Chapter 7 makes the transition into literature and discussion. It addresses the first two research questions: “How are cultural values reflected in the process of (or outputs

from) action planning, funding, and implementation” and “What gives voice in the (collaborative) process?” The emerging framework for voice, based on insights from the case study, is introduced. Part I of the framework guides the discussion and triangulation of research questions – insights from the case study and literature. It starts with a summary of the values expressed and captured during the case study. Who speaks and with what authority lead into the exploration of the second question. The challenge of listening in the context of the complexity of the topic is linked to the challenge of listening from the position of different worldviews and languages in the room. Following this discussion, the values introduced in the first part of the chapter are further explored based on the insights from the literature on worldviews. The chapter concludes with a review of Part I of the framework and proposes a slight modification to who is speaking. The voice of the river as a potential unifier of the voices is added to the framework.

#### Chapter 8 – Giving Voice through Short-Term Collaborations and Intergenerational River Management Planning

Chapter 8 addresses research questions 3 and 4. The discussion is guided by the second part of the developing framework for voice. It discusses the time required to build cross-cultural relationships and to influence the thinking of dominant thought by drawing on Fleck’s concept of thought collectives and thought styles and how they change over time. The discussion regarding the third research question, ‘Voice in short-term collaborations – “How do Mediated Modelling and other tools support the voice of Māori?”’ briefly outlines a range of potential tools. It starts with three Māori approaches – *kōrero tahi* (talking together), *wānanga*, and *hīkoi* (walk) – followed by Mediated Modelling and Appreciative Inquiry. Given the time required to influence the thinking of dominant thought collectives, intergenerational visioning and planning are proposed as complements to the short-term collaborations. This leads to question 4: “Voice and iwi/hapū river management planning – how could intergenerational plans contribute to the voice of Māori?” Initial thoughts on what an intergenerational plan could look like are shared. Last, the fourth value in the framework of voice, *tui, tui, tuia*, is introduced.

#### Chapter 9 – Iwi/hapū Reactions to the Framework – Discussion and Conclusions

The final chapter consists of three parts. The first part shares feedback given on the framework for voice. This feedback was obtained from the original iwi/hapū participants in the IFS/MRLF action planning workshops. A semi-structured interview process was



used to test the reaction to the framework and the understanding of the values shared over the 3-year period. Modifications were made to the visual presentation during the process, and these culminate in a simplified presentation of the framework that concludes the first part of the chapter. The second part of the chapter summarises the contributions this research has made. Part three outlines a new set of potential research questions and how further research could test the usefulness of the framework for voice to other cross-cultural projects concerning integrated freshwater management.

#### **1.4 SUMMARY**

Chapter 1 provided the high-level background and structure for the research. Interest in freshwater management was triggered by a personal experience of lack of water. Conversations about the challenge of freshwater management offered two avenues for research. The focus on cultural values was chosen over a management approach in the expectation that different values could lead to different management approaches over time.

The research is structured into three blocks. Chapters 1–3 provide the background to the research, followed by the research approach. Chapters 4–6 cover the three phases of the case study. Chapters 7–8 discuss findings from the case study with the help of a framework for voice. Part I of the framework addresses the question of whose voice is being heard and the role of different worldviews and values in the process of listening. Part II of the framework connects short-term collaboration with intergenerational planning. Chapter 9 draws the dissertation to a conclusion.





## CHAPTER 2. WHY WATER AND THE VOICE OF MĀORI

This chapter shares insights from the initial exploration of aspects of integrated freshwater management. It describes a range of different angles that could have been taken to approach the topic, and provides the context for choices made for this research, in particular the collaboration with Māori. It describes where the research is positioned from a geographical point of view and how it relates to different worldviews. Finally, it explains why the field of Ecological Economics was chosen as the basis from which to conduct the research.

### 2.1 MOTIVATION FOR THE RESEARCH

The challenge for New Zealand is to avoid a repeat of history as it has been experienced by other countries that are now spending a great deal of money to return their rivers to life-supporting quality. In the case of the River Rhine alone, which is shared by nine European countries, between 20 and 25 billion € had been spent by 2006, in a concerted effort to re-introduce salmon<sup>13</sup> (Bernstein, 2006). The Rhine, one of Europe's busiest shipping routes, provides a story of hope. Considered 'dead' over long stretches by the late 1960s, the Rhine had regained its life supporting capacity twenty years later. This was mainly due to the collaboration and determination of people in the nine countries concerned. People along the Rhine depend on the river's capacity to provide drinking water as well as water for agricultural and shipping purposes. The Rhine is also a sobering example in that the life-sustaining river of today is not the river it once was. The original Rhine salmon is extinct – today's salmon is an introduced species from the Atlantic. Overall the ecosystem has been changed; and now includes a mix of traditional and introduced species (Brenner, Buijse, Lauff, Luquet, & Staub, 2004; Chichester, 1997).<sup>14</sup>

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<sup>13</sup> The Rhine was once famous for its salmon. The fish was so abundant that it was considered part of the staple diet. During the large salmon migrations the river would glitter with silver. The last known salmon was caught in 1958 (Chichester, 1997).

<sup>14</sup> My river is the Neckar, a tributary of the Rhine in Southern Germany. I grew up in a small village called Neckarhausen (which translates as 'houses along the Neckar'). It celebrated its 1200<sup>th</sup> anniversary in 1973. When I grew up, the Neckar had a distinct smell of decay and chemicals. The water was dark brown and unfathomable. It never occurred to me that one could drink water from a river, swim in it or catch fish to eat. Only when I first visited New Zealand in the early 1980s, did I realise that a river could be full of life, sweet tasting, and the perfect place for a swim. Nowadays, when I visit my parents in Neckarhausen, I check the Neckar and see with delight how the waters are becoming clearer, how children enjoy playing on a small beach, and how anglers catch the occasional fish. There are many varieties of ducks and other water fowl that I don't remember from my childhood days – and the foul smell has gone. The Neckar is still not as healthy and perfect as it could be, but it is getting better. When I come back to New Zealand, I note the signs warning people away from swimming spots and from taking food. Rivers are becoming drains, drying up in summer and don't smell as fresh as they used to.

Unlike many other countries that share large river catchments, New Zealand, due to its insular nature, is in the enviable position of being able to shape the future of its freshwater supply and fisheries without the complication of cross-border negotiations. Like other countries, New Zealand depends on its freshwater for economic success. As Mary Annand, the former Chair of the Macintyre Brook Group in 'Reinventing Irrigation Catchments – The System Harmonisation Story', observes "...a healthy river is ultimately a strong production business" (Bristow & Stubbs, 2010, p. 8).

## **2.2 POSITIONING THE RESEARCH – FRESHWATER**

Water flows through everything, or, in the words of a Māori proverb, I am the river, and the river is me – Ko au te awa ko te awa ko au (whakataukī = proverb from the Whanganui River).

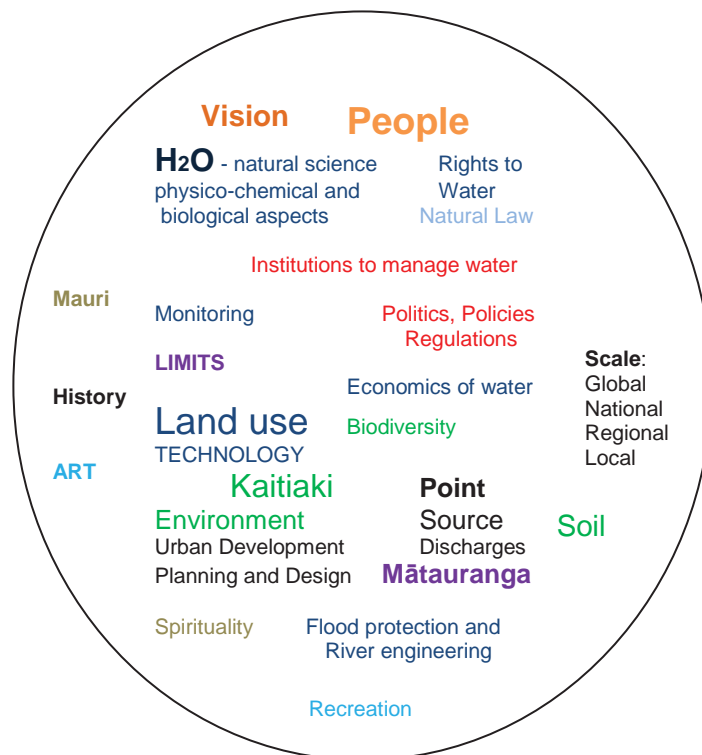
This section highlights a number of possible dimensions of integrated freshwater management as they presented themselves in the lead up to the research. Rather than being exhaustive, the section is intended to raise awareness how multi-faceted freshwater management is. Ultimately two continua were chosen to frame the actual research. The first one looks at the physical and geographical global to local continuum, positioning the research at the catchment to local level. The second one describes approaches to freshwater management in the context of different worldviews.

### **2.2.1 The Many Possible Dimensions of Integrated Freshwater Management**

As populations around the globe grow and nations over-allocate their water resources while at the same polluting surface waterways, lakes, and ultimately ground water, the urgency to find better ways of managing freshwater is growing (Barlow, 2008; Glennon, 2009; Orsenna 2010; Pearce, 2006; Prud'Homme, 2011).

The pressure on water and the need for integrated freshwater management around the world have increased due to water's manifold values – it is being valued for its life-giving (drinking and basic food production for humans), spiritual (religious and cultural ceremonies, aesthetic values), ecological (life giving for all other life forms than humans), and economic (large-scale agriculture and industries) contributions (Wolf, 2011). At the same time, waterways are valued as transport infrastructure and for their waste-disposal capacity. The competing uses lead to a vicious cycle of more extraction for consumption leading to less capacity to dilute, leading to more pressure on quality water for consumption, and so on. For New Zealand, this dilemma is explicitly reflected in its National Policy Statement for Freshwater (Ministry for the Environment, 2011b).

Given the many conflicting values and interests, one of the questions that emerged in the early days of the research was: ‘Integrated freshwater management – where does it start, where does it end?’ What initially had appeared to be a straight-forward field of research, based on my supply chain management background,<sup>15</sup> proved very quickly to be an intricate, multidimensional web of worldviews, cultural values, realities, ways of knowing – western science and Mātauranga Māori, practical and theoretical, stakeholders, disciplines, theories, methodologies and methods. Integrated freshwater management can be approached from the viewpoint of the natural sciences (chemistry, hydrology, ecology, morphology, etc.), the legal fraternity (rights to water), politics, institutions, planning, economics, food security, health, business management, technology, stewardship and guardianship, or the spiritual realm and the arts, to name a few. Freshwater can be seen as a wicked problem (Rodgers, 2009), or it can be understood as the essence of life (Sharples, 2009). Figure 2.1 contains a collection of aspects of freshwater management that I encountered in the lead up to the research.



**Figure 2.1: The Field of Integrated Freshwater Management**

**Source:** Author, based on literature review and various conversations

The following section sets some initial boundaries to the research with the help of a geographical and a worldview continuum.

<sup>15</sup> Before joining the IFS project, I worked in senior supply chain management roles in Europe, the United States, and New Zealand – hence my interest in the management aspect of freshwater.

## **2.2.2 Physical and Geographical Omnipresence of Water: The Global–Local Continuum**

There is a growing understanding and acceptance of our globe as a single place, consisting of a wide range of culturally diverse, but interdependent localities. Local actions can have global consequences and vice versa. Impacts are not only cumulative, but constantly create new reference frameworks, which in turn create new local realities (Spariosu, 2004). In an analogous way, one can look at water on this globe as a single source that manifests itself across many interdependent and culturally diverse localities. Going back in history, Thales of Miletus has been attributed with being the first philosopher who recognised the omnipresence of water. For Thales, water was the ‘arché, the originating principle of nature’, i.e. water flows through everything and recycles itself in many forms. This finding was based on observation rather than attributed to intervention by the gods (Sison, 2009). The following aspects demonstrate the global–local interdependencies.

### **2.2.2.1 The Global Level**

Starting at the global level, approximately 97.2% of the water on earth can be found in oceans; 2.15% is freshwater locked up in ice; 0.32% is deep-level groundwater; and the remaining 0.33% constitutes freshwater contained in shallow water tables, lakes, rivers, wetlands, and moisture in the soil and in the atmosphere (Gleick, 2002; Suzuki, McConell, & Mason, 2007).

The amount of water in the water cycle does not change per se, i.e. there is always the same amount of water moving through a cycle of precipitation, consumption, absorption, evaporation, and precipitation back into the overall cycle. However, the cycle does shift over time and across geographies, in a natural rhythm,<sup>16</sup> and, increasingly, also through human activity. A dramatic example of the effects of human intervention is the almost complete disappearance of the Aral Sea, due to the diversion of water from its feed rivers into irrigation for cotton plantations. Lake Chad in Africa is at risk of a similar fate as its waters are increasingly abstracted for crops (Pearce, 2006).<sup>17</sup>

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<sup>16</sup> Part of this rhythm are the very long-term changes between ice ages and periods of more moderate climate, but also shorter cycles of approximately 200 – 400 years which can be deducted from various ice core sampling exercises. The cultures of the Moche and Tiwanaku in Peru provide one example of the alternating rise and fall of the cultures in line with changing weather cycles (Bowen, 2005).

<sup>17</sup> In 2013 a Global Times article claimed that China had lost some 28 000 – more than half of its rivers and streams since the last river count in the 1990s. While some of this loss was attributed to new mapping techniques the rest was due to overexploitation (Liu, 2013).

Another large-scale intervention in the water cycle is the clear-felling of vast areas of tropical forests. Many incremental changes on local level aggregate until global shifts become evident. These materialise in a higher frequency of weather events and can even shift whole climate zones. While some zones experience more rain, others become drier and hotter over time, causing desertification.

The mounting urgency of ensuring freshwater supplies for some nations is illustrated by the idea of ice harvesting from Antarctica. In the Argentine documentary 'Hielos míticos' (Bazan, 2009) a government official states that Argentina will never give up its claims on Antarctica, since it expects a run on the continent's most precious resource, freshwater in form of ice, within the next 20–25 years. Coincidentally, Professor Marilyn Waring (Public Policy at AUT University), in her key note speech at the 2010 Environment Institute Australia and New Zealand conference in Wellington, mentioned the interest in harvesting Antarctica's icebergs once they move outside the Antarctic Treaty zone (Waring, 2010). The Antarctic example elevates the question of managing water as one of the commons from a local to a global level. Potential impacts of harvesting the ice could show up in changes to water temperature in oceans and climate and, as a consequence, in the food web of oceans and land.

A 2010 article in *Nature* 'Global Threats to Human Water Security and River Biodiversity' substantiates the issue by stating that "nearly 80% (4.8 billion) of the world's population (for 2000) lives in areas where either human water security or biodiversity threats exceed the 75<sup>th</sup> percentile"<sup>18</sup> (Vörösmarty et al., 2010, p. 556).

#### **2.2.2.2 The National Level**

New Zealand has on average one of the highest renewable water resources per capita in the world. However, averages do not reflect the realities of a rather dry East Coast, which is at risk of becoming even drier due to changing climate patterns, and a very wet West Coast, with Fjordland being one of the world's wettest areas.

Intensification of urbanisation and agriculture, in particular intensification of dairying, over the last 10–40 years, has led to increasing pressures on water allocation and quality in lowland river systems (Joy, 2010; Land and Water Forum, 2010; Rodgers, 2009). The claim to having water of a relatively high quality when compared with other nations, based on a 2010 Yale study that put NZ's water quality at a score of 99.2 and ranked NZ as number 2 in the world after Iceland (Yale, 2010), was immediately

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<sup>18</sup> [www.riverthreat.net](http://www.riverthreat.net) provides a series of maps depicting the threat to individual countries.

challenged by local scientists. David Hamilton, Professor of Lakes Management at Waikato University, put water quality in NZ's lakes based on his data of 134 lakes at only 66.7 (Hamilton, 2011).

The growing importance of freshwater management in NZ manifests itself in several ways. In 2009 the government started the 'Fresh Start for Fresh Water' initiative. The Land and Water Forum (LAWF) was established and tasked with finding recommendations aimed at maximising opportunities from freshwater (ecological, economic and social) while also finding better ways to managing freshwater that were 'less confrontational, more collaborative and more effective' (Land and Water Forum, 2010). In parallel, a new National Policy for Freshwater was developed which came into effect in July 2011. It contains the conflicting values of water, namely its life supporting and waste diluting capacities (Ministry for the Environment, 2011b). Notwithstanding all these efforts, the report on freshwater quality published by the Parliamentary Commission for the Environment (PCE) in November 2013, predicts further deterioration of water quality by 2020 (Parliamentary Commission for the Environment, 2013).

### ***2.2.2.3 The Regional–Catchment–Local Level***

On a regional–catchment–local level, 12 New Zealand regional councils and 4 unitary authorities are tasked with sustainable resource management under the RMA. The RMA is New Zealand's key natural resource statute. It regulates the sustainable management of land, air and water. It provides regional and local councils with the authority to set rules and guidelines for the take, use, damming and diversion of water (Resource Management Act, No. 69., 1991; Ruru & Manaaki Whenua-Landcare Research NZ Ltd., 2009). Under Section 5 of the RMA sustainable management is defined as:

managing the use, development and protection of natural and physical resources in a way or at a rate, which enables people and communities to provide for their social, economical, and cultural wellbeing and for their health and safety while: a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations, and b) safeguard the life-supporting capacity of air, water, soil and ecosystems, and c) avoiding, remedying or mitigating any adverse effects of activities on the environment. (Ministry for the Environment, 2009, p.24)

Accordingly, the regional and unitary authorities allocate water for urban, industrial, and agricultural uses, provide flood protection, and monitor water quality and biodiversity in water and on land.

In 2004, the Horizons Regional Council (HRC) embarked on a new regulatory framework, the One Plan, for its region, which includes the Manawatū, Rangitikei, and Whanganui River catchments. The One Plan integrates the management of air, land and water in the region. The Manawatū Catchment is highly modified. Major floods in 2004 led to a 10-year programme of works to increase the height of stop banks and improve overall flood protection (Horizons Regional Council, 2008). It was recognised at the time that high sediment loads in the river caused by erosion were slowly raising the river bed and contributing to the risk of flooding. As a consequence, the Sustainable Land Use Initiative (SLUI) was introduced to support farmers in reforesting their erosion prone hill country (Horizons Regional Council, 2007a). Due to intensification in farming, the water use in the Manawatū catchment more than doubled between 1997 and 2013 (Roygard et al., 2013, p. 5). In 2009 the Manawatū River became known as New Zealand's 'river of shame' due to its low levels of dissolved oxygen, which threatened its life-giving capacity (see Chapter 1). The Manawatū provided the case study at the catchment to local level on the continuum as shown in Figure 2.2.



**Figure 2.2: Positioning the Case Study at the Global-Local Continuum**

### **2.2.3 Freshwater – The Value Continuum: Exploitative/Utilitarian – Esoteric/Spiritual**

Water provides a good example of Dyer's quote "Change the way you look at things and the things you look at change" (2009, p1). First, it comes in several different physical manifestations from vapour to liquid to solid form. Depending on one's worldview, it can be seen as a mere resource to be exploited by humans for their purposes (utilitarian end of the continuum) or a life form in its own right at the (esoteric/spiritual) end of the continuum. This section looks at some initial ideas of how a more utilitarian or spiritual/reciprocal approach might influence approaches to freshwater management.



### **2.2.3.1 Looking at Water from the Exploitative/Utilitarian End of the Continuum**

Due to its omnipresence and the absence of a substitute, water, like no other natural resource, underpins the economic performance of nations and communities, corporations and farmers alike. Ancient water distribution and irrigation systems that have sustained communities in arid areas over thousands of years are testament to the age-old need to manage water prudently (Ostrom, 1990/2008).<sup>19</sup>

The understanding of humans as masters of nature and the development of a more individualistic and utilitarian mindset in western cultures has led to increasing levels of water exploitation. The availability of water at little or no cost to industry and agriculture has resulted in ever increasing uses. The advance of technology has made previously inaccessible water in deep-seated aquifers accessible. A whole industry of accessing, creating, storing, and distributing water, together with the creation of 'new water' ventures, for example through cloud seeding, desalination or condensation, has made freshwater a big business. Enormous dam projects in Egypt, the USA, China, and other countries are changing landscapes and ecosystems on a large scale (Barlow, 2008).

Large scale irrigation underpins the development of industrial farming. Global trade leads to the redistribution of 'virtual' water, embedded in products. A new way of accounting for national water use, imports, and exports is evolving through the water footprint initiative, which shows the water content in products as well as the water trading balance sheet for nations (Chapagain & Hoekstra, 2008).

There is an inherent relationship between water and energy consumption and production. The development of new water production and distribution schemes require increasing amounts of energy, some of which is generated through hydropower schemes. In New Zealand, hydropower contributes up to 60% of electricity (NZ Business Council for Sustainable Development, 2008). Water is now also targeted to help access scarcer oil resources, for example through fracking, potentially leading to further depletion and pollution of water resources.

Tensions between economic interests driving the privatization of water and public demands to recognise water as a human right have been growing since the 1980s. Since there is no substitute for it, freshwater takes a special place among the commons as a fundamental ingredient for human survival. In 2010, following campaigning and

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<sup>19</sup> Ostrom's observations that commons like water can be managed prudently are in contrast to Hardin's observations. Hardin laments the exploitation of the commons in pursuit of individual benefit maximisation (Hardin, 1968).

pressure from people around the world<sup>20</sup> who were increasingly being denied access to clean drinking water in the context of water privatisation, the United Nations acknowledged a human right to water (United Nations, 2010).

In New Zealand, Māori have seen the rapid demise of their once highly productive water-based economy. The conversion of forests and wetlands into pasture and cropping lands, combined with the introduction of foreign plant and fish species, has in many cases irreversibly changed the habitat and ecology of New Zealand's water bodies (McDowall, 2011).

The increasing pressures on water quantity and quality around the world beg the question of how water could be managed differently if it was to be approached from the other end of the exploitative/utilitarian – esoteric/spiritual spectrum.

### ***2.2.3.2 Looking at Water from the Esoteric/Spiritual End of the Continuum***

For Māori, like many other indigenous peoples, water is a taonga, something to be treasured. It possesses a spiritual, life giving dimension that elevates it from a mere resource to the essence of life. For Māori the 'mauri' of water is closely linked to the well-being of the people (Durie, 1998a; Smith, S.M., 2007). Huhana Smith (2011) elaborates:

For Māori there is mauri, a life force, within all things. Nothing in the natural world is without this essential element – mauri represents the interconnectedness of all things that have being. Kaitiaki (guardians) are responsible for ensuring that the mauri within natural resources is protected and that balance is maintained. Inappropriate use of resources, for example discharge of human waste or animal effluent to a waterway, disturbs the natural balance, affecting mauri. The kaitiaki's role is to guard against such disharmony. (p. 147)

Pita Sharples, in his address to the 'Indigenous Legal Water Forum' in Wellington, July 2009, reminded participants that 'all humans arrive in this world on a wave of water at the point of their birth' (Sharples, 2009). The human body consists of up to 65% of water by weight. Every day approximately 3% of water in the human body is replenished with new water molecules (Suzuki et al., 2007). Water is constantly being

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<sup>20</sup> Uruguay was the first country to hold a public referendum in 2004, which provided people with a right to water and ensured public delivery of water (Barlow, 2008).

consumed in the form of liquid or food, which has been grown with the help of large amounts of water. Healthy water is associated with healthy people. Water polluted with bacteria or toxins can cause sickness and death.<sup>21</sup>

In an indigenous context, water is also perceived as a being in its own right. Aboriginal peoples in the Murray-Darling River basin have fought for the recognition of the rights of rivers as life forms, which is indirectly acknowledged through the granting of cultural flows as part of catchment management (Weir, 2009).

The South African lawyer Cormac Cullinan (2002) promotes the development of 'Wild Law', a law to regulate human behaviour in order to protect the integrity of the earth and all species on it. A water ethic that makes the protection of rivers and freshwater ecosystems a central goal in everything humans do is proposed as another option for a shift from the utilitarian to a more holistic and integrated approach to water (Postel & Richter, 2003; Worster, 1994).

The following table is my early attempt to describe the shared need for water as the connector on the exploitative/utilitarian—esoteric/spiritual continuum. It is based on my understanding of western and Māori values in their relationship to water at the beginning of the actual research project. People from all cultures are likely to be distributed right across the continuum.

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<sup>21</sup> Up to 80% of all diseases and health issues in developing countries are connected to water standards not meeting the necessary requirements for human consumption (UNESCO, 2007).

**Table 2.1: Approaches to Aspects of Freshwater Management from the Two Ends of an Exploitative/Utilitarian – Esoteric/Spiritual Continuum**

<b>Water - what humans and all life forms share:</b>  All life forms require water There is no substitute for it		
<b>Exploitative Utilitarian</b>		<b>Esoteric/Spiritual</b>
Humankind is master over nature	Worldview	Humankind is part of nature
Physical – ice – water – vapour	Manifestation	Mauri – life force impacting on human well-being
Property rights Public – private rights Human rights to water	Rights	Water is a life form in its own right Obligations and guardianship
Resource Water exploitation Technology solutions such as: Recycling, De-salination	Consumption	Taonga (treasure) Kaitiakitanga (guardianship)  Respecting the integrity of water

#### 2.2.4 The Voice of Māori in Freshwater Management

In 1840 the Crown and Māori Chiefs entered into the Treaty of Waitangi. The Treaty, seen as the founding document of New Zealand, provides the context for the ongoing tensions between Māori and Pākehā (New Zealander of European descent) in managing natural resources (King, 2003; Orange, 1989/2013). Waitangi is the name of the small stream that flows near the former residence of James Busby, New Zealand's first British Resident and government representative. It translates as 'waters of lamentation'. Unfortunately, the Treaty lived up to its name as Michael King (2003) points out in his History of New Zealand:

While that Treaty was in part a product of the most benevolent instincts of British humanitarianism, and those who signed it on 6<sup>th</sup> February had the highest possible hopes for benign outcomes, the document would turn out to be the most contentious and problematic impediment in New Zealand's national life. (p. 156)

The Treaty was rushed through in response to a perceived threat from French interests and Wakefield's New Zealand Company, both of which were seen as attempts to colonise the country. It was written in English, and translated into Māori over only 5

days, with no prior negotiations or consultation with Māori. The problems with the Treaty stem from the difference in meaning of some of the key concepts in the English and Māori versions of the document (King, 2003; Orange, 1989/2013).

Article 1 in the English version sees Māori cede sovereignty, whereas in the Māori version only governance was ceded to the Crown. The English version of Article 2 guarantees Māori exclusive possession of their lands, forests, fisheries and other properties (taonga), for as long as they wish to keep these possessions. Under the Māori version, chiefs retained “te tino rangatiratanga” or unqualified chieftainship over their taonga (King, 2003; Ruru & Manaaki Whenua-Landcare Research NZ Ltd, 2009; Smith, H., 2011). The differences in the two versions mean that under the Māori version the Crown would have to consider Māori as a partner, while under the English version, Māori are mere stakeholders as far as the destiny of New Zealand and its resources is concerned.

After not being observed for 130 years, the Treaty regained significance with the Māori movement for self-determination in the 1970s. Māori had never lost sight of the importance of the document for their destiny and continue to see the Treaty as a living document that should form the basis for New Zealand’s constitution (Smith, H., 2011). In 1975 the Waitangi Tribunal was established to consider alleged Treaty breaches. The significance of the Tribunal increased in 1985 when its powers were made retrospective to 1840 (King, 2003).

Freshwater, while not explicitly named, is one of the taonga in the Māori version of the Treaty document. This implies the right of Māori to participate equally in its governance. The RMA acknowledges the need to consult with Māori on freshwater management.

The 2005 Wai Ora Report recognises that the freshwater discussion reminds iwi and hapū of loss and exclusion and the denial of rights and responsibilities (Ministry for the Environment, 2005). An Iwi Leaders’ Group was set up in parallel with LAWF to negotiate freshwater rights and governance directly with the government (Office of the Minister for the Environment & Office of the Minister of Agriculture, 2009).

As Ruru points out in ‘The Legal Voice of Māori in Freshwater Governance (Ruru & Manaaki Whenua-Landcare Research NZ Ltd, 2009) there are two primary concerns for Māori:

- Who owns freshwater?
- Should Māori be viewed as a partner or merely as a stakeholder in the recognition of rights to govern freshwater?

Where co-management rights have been awarded as part of treaty claim settlements, for example on the Waikato River, iwi/hapū have gained a partnership position. However, in absence of such settlements, like in the Manawatū Catchment, alternatives have to be found to give Māori a voice in freshwater management.

This section has shown multiple aspects and dimensions to freshwater management as they presented themselves in the lead up to the research. The choice of two continua provides the boundaries for the research focus in regards to freshwater management. The next section gives a brief insight into Ecological Economics and why it provided the base for the research.

#### **2.2.5 Positioning the Research – Ecological Economics**

Given the many facets of freshwater, it very quickly became apparent that basing the research in a single discipline would be counterproductive and a more holistic approach to the research was required. Ecological Economics, as a trans-disciplinary field of inquiry, integrating ecological, economic, social, and cultural aspects, offered the required space:

Ecological Economics does not conceive of itself as a mutually exclusive alternative to any existing discipline. Rather, it attempts to create an intellectual culture where the boundaries between disciplines can be transcended and where problems and questions can be addressed in an integrated way, consistent with their real complexity. (Costanza & King, 1999, p. 2)

Ecological Economics started to emerge in the 1970s. “The field of ecological economics has developed from the need to rethink the relationship between nature and humans and to know how to live in a sustainable way within the limits of the global ecosystem.” (Castro e Silva & Teixeira, 2011, p. 849). The roots of Ecological Economics can be traced back to Classical Economics, which assumes perfect substitution of land, labour and capital, including manufactured or built capital. Nature (land) is seen as part of the economy (Prugh & Costanza, 1999). Ecological Economics

builds on work conducted in the 1960s and 1970s by Nicholas Georgescu-Roegen, Fritz Schumacher<sup>22</sup> and Kenneth Boulding (Daly, 2005).

Unlike Neoclassical Economics, which continues to see nature as a part of the economy, Ecological Economics is based on the understanding that the economy is part of the greater 'earth system'. By placing the economy in the greater earth system, Ecological Economics accepts the limitations to growth inherent in nature. The biosphere is finite and constrained by the laws of thermodynamics (Daly, 2005). The first law states that the amount of material and energy is constant in a closed system. The second law states that while the quantity of energy remains constant, quality changes with use and is expressed as a measure of entropy or 'used up-ness' (Daly & Farley, 2004).<sup>23</sup> Earth is in this context considered as a quasi-closed system with a continuous supply of solar energy.

Ultimately, every economy relies on natural resources<sup>24</sup> as a key input into its production process. Resources are either of an abiotic (fossil fuels, minerals, water, soil, solar energy) or biotic nature (plants, animals). There is a finite amount of resources that are not renewable in the short-term, including fossil fuels and minerals. Landmass, in its totality indestructible, and its availability to humans, however, can vary with rising sea levels or the migration of soils to oceans through erosion. Biotic or renewable resources are available for either consumption or the provision of ecosystem services (such as pollination, water storage) including waste absorption (Daly & Farley, 2004).

Solar energy enters the earth system at a steady rate and provides an outside energy source to allow the earth system to regenerate. Regeneration happens through the process of photosynthesis for as long as consumption of regenerating ecosystem outputs does not exceed and deplete their production capacity. Once this offset capacity has been exceeded the second law of thermodynamics applies (Tiezzi,

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<sup>22</sup> One of Schumacher's key concerns was that natural resources were not included in countries' balance sheets (Schumacher, 1973/1998).

<sup>23</sup> The second law of thermodynamics thus sets limits to the effectiveness of the 'cradle to cradle' concept (Braungart & McDonough, 2009), which promotes a departure from the 'cradle to grave' philosophy in manufacturing and proposes that industries need to strive for complete recycling modelled on nature's practices.

<sup>24</sup> According to the Oxford Dictionary the word 'resource' stems from the "early 17th century (now obsolete) French 'ressource, feminine past participle (used as a noun) of Old French dialect *resoudre* 'rise again, recover' (based on Latin *surgere* 'to rise')" (Oxford Dictionary, accessed March, 2014). The implicit meaning of 'renewable' in 'la ressource' has to be explicitly stated in the modern use of renewable (as opposed to non renewable) resources.



2003).<sup>25</sup> Water is unique as there is a fixed amount of water in the overall system that recycles through the hydrological cycle. As pointed out earlier, this cycle can be influenced through human intervention.

Part of Ecological Economics's underlying philosophy is the acceptance of accountability to future generations when it comes to the allocation and distribution of natural resources. Unlike Neoclassical Economics which relies on economic growth or throughput as a measure of economic wellbeing, Ecological Economics advocates development as an alternative to create increased wellbeing while decreasing throughput. Well-being is defined as individual and social or community well-being. Non-market values are factored into the system and waste is recognised as having a negative impact on overall economic outcomes and wellbeing (Costanza, 2001).

There can only be limited substitution of human built capital, natural capital (land, ecosystems, minerals, etc.), human capital (labour + know how), and social capital (cultural networks, institutions, rules and norms). "The human economy has passed from an 'empty-world' era in which human-made capital was the limiting factor in economic development, to the current 'full-world' era, in which remaining natural capital has become the limiting factor" (Costanza, 2001, p. 460; Daly, 2005; Hawken, Lovins, & Lovins 2010).<sup>26</sup> This transition, confirmed by the 2005 UN-led Millennium Ecosystem Assessment, is based on the input of some 1360 experts from 95 countries, who concluded that globally two-thirds of ecosystem services are already degraded due to human activities (Millennium Ecosystem Assessment, 2005).<sup>27</sup>

Ecological Economics attempts to address in particular the importance of eco-system services, such as the supply of freshwater, for a sustainable economy. In the Millennium Ecosystem Assessment Report (2005) ecosystem services are described as the benefits people derive from ecosystems. These services present an implicit input into the economy, but the value they add is not explicitly acknowledged by Neoclassical

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<sup>25</sup> Those believing in technology as the saviour of mankind argue that it is only a matter of time until solar energy can be harnessed on a grand scale (Diamandis & Kotler, 2012).

<sup>26</sup> A compelling example highlighting the limits of substitution between manmade and natural capital is the example of the futility of building more fishing vessels in order to make up for depleted fish stocks (Daly, 2005).

<sup>27</sup> In Chapter 9 of his book *Collapse*, Diamond uses the example of Tikopia Island to demonstrate sustainable management in a quasi finite 'world'. The island has a size of only 1.8 square miles and can sustain around 1200 people. It has been inhabited for more than 3000 years and had to adapt its sustainable management practices in light of initial resource depletion and environmental change, i.e. the moving of a sandbar which turned a once productive lagoon into a brackish lake. The example demonstrates how a combination of managing natural resources sustainably and population control can enable life over long periods (Diamond, 2005).



Economics. Eco-systems in their complexity are not easily understood. One of the key challenges is to recognise the limits of their adaptability or carrying capacity over long periods of time, in some cases generations (Montgomery, 2007). The reaching of critical thresholds as a result of a plethora of disconnected small-scale decisions can lead to sudden irreversible tipping of systems (Turner, Perrings, & Folke, 1996) and thus the unexpected loss of their services.<sup>28</sup>

In their paper “The value of the world’s ecosystem services and natural capital” Costanza and colleagues estimated the annual contribution of ecosystem services to the global economy to be in the order of US\$ 33 trillion. This compared with an annual global Gross National Product of US\$ 18 trillion at the time and highlighted the importance of ecosystem services to the functioning of economies and human wellbeing (Costanza et al., 1997, p. 259).

The approach of valuing ecosystem services in dollar terms and thus making them more tangible from an economist’s perspective has been criticised by the likes of Norgaard. In his view, the approach poses the risk of providing a false sense of having mechanisms, namely markets and institutions, to manage these systems. Neither markets nor institutions<sup>29</sup> can measure the health of ecosystem services, which in their complexity are not well understood by ecologists due to the difficulty of generalising findings from one ecosystem to others even with similar conditions. The difficulty lies in assessing human impacts over time in combination with different climatic, soil, and other conditions (Norgaard, 2010).

Furthermore, a valuation of ecosystem services in monetary terms does not necessarily reflect the way different user groups value natural resources. “A classic example would be the non-substitutability between the economic value of water in a river for irrigation set against the value of recreational use for fishing or the mauri value of that river...” (Baker et al., 2011, p. 5). They also mention that, “Indicators for provisioning services are generally more readily available than indicators for regulating and cultural services” (Baker et al., 2011, p. 2). This observation points to the less evolved social and cultural aspects of Ecological Economics.

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<sup>28</sup> A good example of the potential economic impact of the loss of such an ecosystem service is the still unexplainable collapse of bee colonies that is presenting a major risk to food security due to reliance on their pollination services.

<sup>29</sup> This view is in contrast to the work of Elinor Ostrom whose work was focused on the development of institutions to govern and manage the commons (Ostrom, 1990/2008; 2005).

Overall, less than 3% of papers published in Ecological Economics address aspects of values such as ethics, fairness, equity, rights for nature, intergenerational justice, and creative ideas linking social and environmental perspectives (Castro e Silva & Teixeira, 2011). Yet, Ecological Economics has potentially a relatively close alignment with the values of indigenous cultures, as both see economic activity as a subset of the earth system. Ecological Economics opens inquiry into solutions and integrated decision making up to citizen participation, giving diverse stakeholder groups a voice in the process of adaptive management over time (Pahl-Wostl, et al., 2007; Ruhl & Craig, 2012).

Mediated Modelling has evolved in this context as one method to support decision making for complex situations. It facilitates the dialogue between a wide range of diverse participants in the process of integrated and adaptive ecosystems management such as freshwater management. It uses computer-based system dynamic modelling to allow stakeholders jointly to develop a deeper understanding of the spatial and temporal dynamics of an ecosystem. The consideration and integration of economic, ecological, social, and cultural stakeholder perspectives and values in the model enables stakeholders jointly to develop, scope, and test different interventions in the system showing plausible or possible scenarios over time (van den Belt, 2004).

How different values are being expressed and reflected in approaches to integrated freshwater management for the Manawatū catchment will be explored through the case study underpinning this dissertation.

## **2.3 SUMMARY**

This chapter provided the more detailed background and motivation for the PhD research. It stated the purpose of the research to contribute to the development of integrated freshwater management in New Zealand by paying particular attention to the voice of Māori and how it is heard and integrated.

The chapter explored the complexity of integrated freshwater management by sharing an overview of possible approaches as they presented themselves in the lead-up to the research. It alerted the reader to the omnipresence of water in a spatial sense. It then discussed the approach to freshwater management from a more utilitarian versus reciprocal/spiritual point of view. It set boundaries to the research in regards to freshwater by placing the research at the local–catchment level on the geographical continuum. Philosophically, integrated freshwater management can be influenced by

worldviews along a continuum ranging from exploitative/utilitarian to esoteric/spiritual attitudes towards water.

This was followed by a brief reflection on the Treaty of Waitangi and the voice of Māori in freshwater management. It recognised that there is a potential discrepancy between the intent of the Treaty and the practical involvement of Māori in the management of water as a taonga. The last part of the chapter made a case for the choice of the field of Ecological Economics as the basis for this trans-disciplinary and cross-cultural research. It identified an affinity between Ecological Economics and the Māori culture as both understand the economy to be part of the greater earth system. Humans are part of, rather than masters over, nature. There is a shared understanding that the bounty of nature in the form of ecosystems services such as freshwater needs to be managed in a more sustainable way.

The next chapter describes the research approach and methods applied throughout the research.

## **CHAPTER 3. RESEARCH APPROACH, DILEMMAS AND METHODS**

This chapter covers assumptions, research approach, and methods in more detail. It provides an overview of how the three distinct phases of research emerged and how the research approach was adapted over the 3-year period. The chapter is written retrospectively. It endeavours to capture the challenges along the way as awareness and understanding grew. It starts with the research context, followed by research questions and underlying assumptions. Next is a brief reflection on two dilemmas: the first recognises the fine line between research and consulting<sup>30</sup> or project management; the second concerns the production of knowledge and the originality of thought. The next section looks at ethical and practical questions of doing research with Māori as a non-Māori. This is followed by the choice of the case study format to record insights from the research. The last part elaborates on the epistemology and method of ‘verstehen’ which underpinned the research.

### **3.1 THE THREE PHASES OF THE RESEARCH – HOW THE JOURNEY UNFOLDED**

As outlined in the previous two chapters, the research was prompted by the realisation of the ever-increasing importance and complexity of freshwater management around the world. The idea of exploring how a western approach might be complemented by an indigenous and, in the case of New Zealand, Māori approach to freshwater, appealed. Coincidentally, the opportunity to join an action research project became available. The case study is based on the IFS action research project and the MRLF events between October 2010 and November 2013.

#### **3.1.1 Research Context: IFS and PhD – Planned and Actual Approach**

The IFS case study will be discussed in detail in Chapter 4. However, a brief description of the major changes to IFS as the host project is required at this stage to provide context for the evolving nature of the PhD research.

In the original plan, as outlined in the funding application to FRST, IFS had allowed for research over a 3-year period. The first research year was dedicated to literature reviews and capacity building around research amongst the participating iwi/hapū. Iwi/hapū specific research subprojects had been agreed with ROM, Ngāti Kauwhata, and Muaūpoko. In the second 12-month period a series of Mediated Modelling workshops was to be conducted with a wider stakeholder group. One aim of the

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<sup>30</sup> Consulting in this context needs to be understood as the business or process of giving expert advice to people working in a professional or technical field (Oxford Dictionary of English, 2010).

workshops was to gain the necessary insights to develop a blueprint for regional councils on how to use Mediated Modelling as a decision support tool in integrated catchment management in New Zealand. A blueprint was to be developed in the third 12-month period (van den Belt & Forgie, 2010, unpublished). The focus of the PhD research was to establish how suitable Mediated Modelling could be as a tool to make the voice of Māori heard in integrated freshwater management on a catchment level. The plan was to mirror the IFS activities, starting with a literature review, followed by the workshops and a write up of the dissertation in year 3.

The actual approach saw IFS collaborate with MRLF in developing an action plan for the Manawatū River. MRLF activities had emerged in parallel with the IFS funding application. HRC had formed MRLF in response to the public outcry around the state of the Manawatū. MRLF is a voluntary collaboration between leaders from local government, farming, business, environmental groups, and iwi/hapū. By June 2010, MRLF had signed an Accord and was committed to developing an action plan to improve the state of the river. Given that IFS and MRLF collaborated with the same stakeholder group, it was agreed in August 2010 to join forces in the development of the plan.

Consequently, the initial 2-year period allowed by IFS for literature review and the series of workshops was contracted into a 6-month period between October 2010 and March 2011<sup>31</sup> at the very beginning of the project. Neither iwi/hapū nor the IFS team had the opportunity to build the envisioned relationships or capacity before the workshops. Furthermore, due to the politically driven MRLF pressure to produce an action plan within a 6-month timeframe, Mediated Modelling was relegated from the interactive workshop environment to a parallel back-office process after the third workshop.

Since the PhD research was nested in the IFS project, it too started with the joint IFS/MRLF action planning process. Equally, there was no time for upfront literature reviews, familiarisation with the IFS methodology or cultural concepts as originally envisioned. The focus during the workshop period was on surveys, data gathering, and workshop observations. This was immediately followed by a period of data analysis. Effectively, this meant that observations made during the workshops were mainly made through the lens of life-world experience. Observations from this period constitute Part I of the research. They are captured in Chapter 4.

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<sup>31</sup> The need for an additional workshop to finalise the editing of the action plan ultimately extended the workshop period to April 2011.

Towards the end of 2011, it was apparent that there was a flow-on effect from the relegation of the Mediated Modelling process to an in-between workshops activity with limited engagement during workshops. It meant the evidence to support the suitability of the tool to make the voice of Māori heard was insufficient to draw conclusions with confidence. This realisation resulted in the need to adapt the research questions and the research approach. Ultimately, the research connection with IFS became somewhat less prominent than planned after the first phase of the project. Instead, the second phase of the research followed the voice of Māori through the MRLF funding and implementation process between July 2011 and November 2013 which is described in Chapter 5. The third phase, described in Chapter 6, is concerned with the development of a RMPF from the source of the Manawtū to the sea.

In July 2012 Te Kāuru invited me to join their team and to become actively involved with hapū. The collaboration with Te Kāuru provided a different level of engagement. Therefore, phases II and III of the case study are approached from a pan-iwi as well as a Te Kāuru-specific vantage point. Table 3.1 summarises the key events over the 3-year period. It is followed by a brief discussion of the adaptation of the research questions in light of the adaptations in the IFS process.

**Table 3.1: A Summary of Events over the Three Year Research Period – IFS and PhD**

IFS	October 2010–2011	October 2011–2012	October 2012–2013
<b>IFS Plan</b>	Literature Review	Mediated Modelling workshops with wider stakeholder group	Blueprint for Regional Councils
	Research capacity building with iwi/hapū (sub-projects)		
<b>IFS Actual</b>	7 Workshops to develop Action Plan	1 workshop on economics	1 workshop on Accountability in collaborations
	Research capacity building with iwi/hapū (sub-projects)		IFS Draft Report/Blueprint
			MIMES <sup>32</sup>

<sup>32</sup> MIMES stands for Multi-Scale Integrated Models of Ecosystems. It will be described in more detail in Chapter 4.

PhD	October 2010–2011	October 2011–2012	October 2012– 2013 – September 2014
PhD Plan	Literature review Capacity building in research methodology	Mediated Modelling workshops – data gathering and analysis	Dissertation
PhD Actual	7 Workshops – data gathering and analysis	Confirmation  Re-defining the research focus and questions  MRLF and iwi/hapū funding and implementation of action plan  Pan-iwi RMPF (July – Sept.) (Led by Te Kāuru)  Collaboration with Te Kāuru funding and implementation TK RMPF	<div> <div></div> <div>Preparation for hapū pilot plan (Feb – April 2013)</div> </div> <div> <div></div> <div>Pan-iwi RMPF continued (Led by Ngāti Raukawa) (Sept. – Nov. 2013)</div> </div> <div> <div></div> <div>Development of Framework for Voice Dissertation 2013/14</div> </div>
	Iwi/hapū sub-project support (Note: Findings from sub-projects are not included in the dissertation)		

### 3.1.2 Research Questions

A set of tentative research questions was agreed based on the purpose of the research to make recommendations on how to improve the dialogue between Māori and non-Māori in other integrated freshwater management collaborations. The initial focus was on stakeholder analysis, in particular on how Māori cultural values and interests are represented and given voice within the Mediated Modelling process proposed by IFS. The second question was how the values are reflected in outputs from the process and the third question was about what gives voice. The limited findings regarding Mediated Modelling led to an adaptation of the original questions to include insights from the MRLF funding and implementation process. A fourth question was added in November 2012 based on interactions with iwi/hapū in the development of a RMPF. It looks at how the voice of Māori and iwi/hapū is connected with river management planning.

In summary, the content of the dissertation is structured around the following four questions:

- How are cultural values reflected in the process of (and outputs from) action planning, funding and implementation?
- What gives voice in the (collaborative) process?
- Voice in short-term collaborations – How do Mediated Modelling and other tools support the voice of Māori?
- Voice and iwi/hapū river management planning – How could intergenerational plans relate to the voice of Māori?

The formulation of the first two research questions was based on a number of underlying assumptions which are described next.

### **3.1.3 Underlying Assumptions**

At the time of formulating the original research questions, I had had limited exposure to the Māori culture or Māori values in regards to water other than the 2009 'Indigenous Legal Water Forum' in Wellington. Based on the little I knew, I made a number of assumptions. First of all, I thought that Māori as kaitiaki would provide another perspective on how to address the current issues with freshwater so that alternative or additional solutions reflecting cultural values could be found.

The second assumption was that all Māori share a common view of the world and that there is one 'Voice' of Māori. It was my expectation that all Māori are kaitiaki and approach river management in a similar way, possibly with local variations. There was little doubt in my mind that the four iwi/hapū groupings along the river were committed to work together in the interest of restoring the river to some degree of health.

Third, I assumed that there were challenges to make the voice of Māori heard. Later in the process I started to wonder whose the challenge is – the challenge of Māori to make themselves heard, or the challenge of Pākehā to listen.

Last, I assumed that there was a way to make the voice of Māori heard and develop joint solutions that go beyond the standard western solutions to integrated freshwater management. The appropriateness of these underlying assumptions will be explored in conjunction with the research questions.



## **3.2 TWO INHERENT CHALLENGES FOR THE PHD RESEARCH**

During the research two themes kept recurring: the first concerns the fine line between research and consulting or project management; the second involves the production of knowledge and the originality of thought.

### **3.2.1 Research versus Consulting**

There were two reasons for embarking on the PhD research. First, it promised to provide an opportunity to study freshwater management in a ‘neutral’ space – namely a space without a preconceived organisational (commercial) or an institutional (political) agenda.<sup>33</sup> Second, given the IFS connection, it offered an opportunity to contribute to knowledge development in a collaborative environment with a real life purpose.

However, ‘When is it research and when is it not?’ This question, posed by Associate Professor and Dean of Research and Postgraduate Studies at Unitec in Auckland, Simon Peel, in the summer edition of ‘Advance’ (Peel, 2012) goes to the heart of one ongoing dilemma throughout the research journey. He poses the question in regards to applied and practical research, and not surprisingly the answer he gives is ‘It depends’.

According to Peel, whether it is research depends on whether the project draws on existing knowledge to achieve an outcome or product without the ambition to create new knowledge or whether the purpose of the project is to test new ideas and add to the existing knowledge base.

The IFS project was about both – drawing on existing knowledge (gained through the application of the Mediated Modelling process overseas) to develop solutions and an action plan for the Manawatū River, and to use insights from the process to develop a blueprint for councils, thus adding new knowledge to the pool. As far as the PhD was concerned, assessing the suitability of Mediated Modelling as a tool to make the voice of Māori heard was also about adding new knowledge.

### **3.2.2 Independent Research and Original Thought**

As the research journey unfolded, the question of what constitutes a PhD dissertation versus just another project report began to echo the question of what is research versus just another consulting project. A good PhD study “should make a significant contribution in the field of study through independent investigation” (Fry, Tress B., &

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<sup>33</sup> Ironically, at this point in time I had not reflected on the political dimensions of science. However, “science has become too important and too expensive not to be political” (Suzuki & Taylor, 2009, p. 16).

Tress G., 2005, p. 194). In this case, the challenge was to achieve independence and originality in a research project nested in a range of collaborative efforts with an agenda set to a large extent by others. Independence and originality appeared as an oxymoron when sought in a research context promoting collaborative learning and solution development.

Collaboration and integration of different forms of knowledge, including knowledge generated by natural and social sciences, the humanities, Mātauranga Māori,<sup>34</sup> and knowledge generated through practical experience in the life-world, invite the question of just how 'independent' research can be. Diamandis and Kotler (2012) query whether individual degrees are still appropriate.<sup>35</sup>

Second, there is the question to what extent a significant (individual) contribution can be made. Isn't the individual contribution a result of the collective contributions made by the participants throughout the research project? It is easy to inadvertently blur the line between the contributions of members of the group and one's own thoughts and contributions. Senge (2006) captures this sentiment as follows:

If collective thinking is an ongoing stream, 'thoughts' are like leaves floating on the surface that wash up on the banks. We gather in the leaves, which we experience as 'thoughts.' We misperceive the thoughts as our own, because we fail to see the stream of collective thinking from which they arise. (p. 225)

Whereas I have personally gained much new knowledge, aspects of this knowledge are shared by many. The 'new' that can be added are personal reflections and interpretations (insights from the process of 'verstehen') of what has been happening in this particular case study. Insights gained were influenced by previous life-world experiences and the growing understanding of the literature. Ultimately, these reflections and observations culminated in a framework for voice as a contribution towards future dialogue in freshwater management.

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<sup>34</sup> In the context of this dissertation, Mātauranga Māori is understood to be "...an encompassing, global way to refer to all knowledge created by Māori in history according to their experiences, worldview and lifeways" (Royal, 2009, p. 2). As Royal explains, the concept of Mātauranga Māori is a relatively recent one. A narrower definition limits it to knowledge created under the inspiration of an atua (non Christian deity). Mātauranga Māori needs to be understood as a body of knowledge rather than a specific kind of knowledge (Royal, 2009).

<sup>35</sup> Diamandis and Kotler (2012) go as far as suggesting that degrees will be a thing of the past. Ultimately, they will no longer be access to a job. Instead, they will be replaced by the ability to generate ideas.

### 3.2.3 New Approaches to Knowledge Creation – Post-normal Science and Trans-disciplinarity

A view of what constitutes research rather than consulting is summarised in a schema developed by Tress and colleagues. Their model includes the level of independence and the difference in motivations or drivers for the exercise. Science is deemed to be mainly curiosity driven, whereas consultancy is demand driven. The lines get blurred around applied science, which is arguably conducted for a specified purpose or demand (Tress B., Tress G., & Fry, 2005, p. 21). This schema stops short of including the concept of post-normal science introduced by Funtowicz and Ravetz in the 1990s.<sup>36</sup>

Post-normal science is applied to real life situations with a high degree of complexity and high stakes around decision making. It is a methodology for integrating complex natural and social systems in policy-based problem solving (Funtowicz & Ravetz, 1991, 1993, 2003; Ravetz, 1999). It positions a new version of science required for complex fields of inquiry such as sustainability science and Ecological Economics. Post-normal science is based on the principle of the plurality of legitimate perspectives. It aims at developing an alternative economic system through dialogue, mutual respect, and learning (Funtowicz & Ravetz, 2003).

Problem statements are scientific. However, the path to a solution differs from traditional science approaches as it is predicated on the negotiation and mediation of multiple voices – including science – representing potentially conflicting interests and scientific insights (Funtowicz & Ravetz, 1994; Ravetz, 2006). The dialogue between science and non-science presents the strength and weakness of post-normal science as it moves objective science<sup>37</sup> into a space of subjective negotiation (Ravetz, 2011).

Figure 3.1 combines the two models of what constitutes science, positioning post-normal science in the space beyond consultancy. Seen from this perspective, post-normal science represents a new form of applied trans-disciplinary science. It goes beyond applied science and consultancy as it addresses more complex issues and integrates the knowledge of a wider range of knowledge holders including non-

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<sup>36</sup> Post-normal science can be seen as a departure from Kuhn's normal science or puzzle solving within a known paradigm (Funtowicz & Ravetz, 2003).

<sup>37</sup> Just how objective science can be is another fascinating question. As Kurt Lewin (1943/1963) already observed, research is necessarily shaped by the researcher's understanding of reality and what constitutes knowledge. The question does not apply only to social sciences. The new physicists too, observed that objectivity is influenced by the way of knowing. The way a question is formulated will have an impact on the outcome of the research (Nicolescu, 2006). More recently, the discipline of science studies, i.e. the study of science and scientists in ways anthropologists or sociologists would apply to other social groups, suggests that scientific facts are socially constructed (Johnson & Gray, 2010).

scientists. It has the dual purposes of contributing practical solutions and establishing new knowledge about the process and tools of doing so.

Science			Consultancy	Post- Normal Science
Fundamental	Strategic	Applied		
← -curiosity driven -emerging theories -problem investigation -autonomy -truth/knowledge			→ -demand driven -professional practice -problem solution -dependence -acceptance/agreement on problem	→ -life-world issue -high degree of complexity -high decision making stakes

**Figure 3.1: Science or Consultancy? – The Science – Post Normal Science Continuum**  
**Based on:** Tress et al. (2005) and Funtowicz and Ravetz (1993)

Gibbons et al. (1994) called the new way of producing new knowledge Mode 2 as opposed to Mode 1. Mode 1 represents the traditional, discipline based production of knowledge in an academic setting. Mode 2 knowledge is trans-disciplinary in nature, heterogeneous and transient. As implementation is a goal of the research, the quality of outcomes is measured in terms of social accountability, such as usefulness to the community or effectiveness in addressing the problem at hand. Participants in the research tend to be more reflexive, as the search for consensus around solutions requires an active questioning of existing values and preferences (Gibbons et al., 1994).

In line with post-normal science, trans-disciplinary research aims to solve complex problems originating in the life-world (Hirsch Hadorn et al., 2008; Wickson, Carew, & Russell, 2006). By its very nature, trans-disciplinarity (td) goes beyond applied science as it is not specific to a 'client' per se. Knowledge gained through the collaborative research process can be seen as a public property which is a characteristic of science (Balsiger, 2004).

After almost 40 years of practice, td remains a fluid concept. In 2012, Jahn, Bergmann, and Keil (2012) provided the following 'preliminary' definition:

td is an extension of id [inter-disciplinarity] forms of the problem-specific integration of knowledge and methods; while integration refers to scientific questions at the interface of different disciplines in id, in td on the other hand, it is about integration at the interface of these scientific questions and societal problems. (p. 3)

Trans-disciplinary projects need to be seen in their different contexts, which are characterised by three main criteria: 1) The problem context is related to problem content and scope as well as to levels of uncertainty and the ability to influence change;<sup>38</sup> 2) the research context is characterised by the availability of funding, the proximity of researchers, and timeframes; 3) the researcher's context is related to previous experience, the ability to collaborate across different disciplines, and the willingness to engage and keep an open mind (Carew & Wickson, 2010).

Trans-disciplinary projects tend to go through phases of problem identification, problem analytics and, last, integration and application. The latter phase includes planning, implementation, and monitoring of actions resulting from the first two phases (Costanza, 2003; Jahn et al., 2012; van den Belt, 2004). Td is characterised by three kinds of knowledge. Systems knowledge helps understand how everything fits together. Target knowledge articulates what is to be achieved, and gives the rationale for stakeholders to engage. Transformation knowledge covers questions on how to best effect outcomes through, for example policies, regulations, technologies, practices, etc. Trans-disciplinary projects are unique due to the underlying variations of issues, context, and sources of research (Hoffmann-Riem et al., 2008; Jahn et al., 2012).

Max-Neef (2005) describes two kinds of td. Weak td goes between and across all disciplines on one level of reality. These disciplines are organized in hierarchical form, connecting empirical, pragmatic, normative, and value levels, defining one and the same world. The problem-solving focus in this paradigm of td is likely to prevent true dialogue (Nicolescu, 2006). Strong td goes beyond what is between and across the disciplines. It is based on three premises: 1) the existence of different levels of reality; 2) the principle of the included middle; and 3) complexity (Max-Neef, 2005; Nicolescu, 2000, 2006). The epistemology of strong td allows simultaneous modes of reasoning – the rational, which is emphasised in western culture, and the relational, which can be found in orally based cultures. Strong td can help to facilitate the dialogue between the two<sup>39</sup> (Max-Neef, 2005)<sup>40</sup>.

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<sup>38</sup> The ability of influencing change is linked to the level of stakeholder involvement. It increases as involvement shifts from mere information sharing towards consultation, collaboration, and empowerment (Brandt et al., 2013).

<sup>39</sup> The IFS project had intended to demonstrate the dialogue across cultures and knowledge bases.

<sup>40</sup> Cilliers and Nicolescu (2012) seem to depart from the concept of strong trans-disciplinarity in favour of a unified, complex theory of levels of reality. Under this theory, trans-disciplinarity deals with methodological issues in broadening the scope of scientific study. Complexity

### Box 3.1 On a Personal Note: Post-Normal Science and Td Seen from a Business Perspective

Seen from the perspective of my business background, both post-normal science and td projects appear like mirror images of complex business projects. In the business world the search for new knowledge and solutions requires the synthesis of knowledge from many life-world practices with the occasional input from (applied) science. Post-normal science and td see the emergence of the collaboration between multiple academic disciplines and participants from the life-world. The key difference between the two appears to be that the life-world is driven more by outcomes than processes. Academia on the other hand, even when putting the problem first and tools to solve it second, as is the case in Ecological Economics (Costanza, Daly, & Batholomew, 1991), has still to meet academic standards regarding the process of new knowledge generation.

#### 3.2.4 The Research Dilemma Continued

For me, the question remains, how does one not get into the situation of inadvertently absorbing and potentially claiming ideas as one's own in social sciences with a collaborative, trans-disciplinary approach? How does one distinguish independent thought from value systems, norms, and beliefs that have been built on individual and collective ideas and experiences over millennia since humans' consciousness arose? To what degree is 'independent thought' shaped by one's culture and worldview? Can one truly claim that an idea is original and not just a variation of somebody else's? An idea transformed into different language, context or meaning in the process of making sense? How does one know that knowledge 'new to oneself' is not somebody else's knowledge?

Cook only 'discovered' New Zealand in the context of it being new to him and his nation. Abel Tasman had discovered it before him, so had Māori, and possibly others. The same applies to the discovery of the medicinal properties of plants long known to indigenous people or even the discoveries of the new physicists that were understood by the ancestors (Marsden, 2003b).

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represents the study of complex systems, their characteristics, and how they affect what we know about our world. There are at least four levels of reality: a collective reality consisting of society, economy and environment, an individual, a spiritual and a cosmic level of reality. Discontinuity between the levels is not about disconnection or separation, but about the end of one state and the beginning of another.



Kuhn (1962/1996) describes paradigm shifts<sup>41</sup> in science as scientific revolutions led by individuals. They represent original thought on a scale that changes the perception of the world as it was known to the point of the paradigm shift. Research within an existing paradigm is 'normal science'. It is incremental and aimed at testing the underlying parameters of a paradigm and enhancing its application. The Polish doctor and philosopher Ludwik Fleck argued for the thought collective building, evaluating, confirming, and developing knowledge in incremental and dynamic ways. This is based on the changing thought styles of the members of the collective who in turn are influenced by the changing thought styles of the varying thought collectives they belong to. Thus it is near impossible to document and reproduce the exact research path leading to a specific outcome<sup>42</sup> (Cohen & Schnelle, 1985)<sup>43</sup>. Or as Ridley (2010) puts it in *The Rational Optimist*, "...at some point in human history, ideas began to meet and mate, to have sex with each other" (p. 6).

However, as Dyer's quote<sup>44</sup> in Chapter 2 suggests, we can change something by changing the way we look at things. So there is the possibility that a new take on existing material will provide a new contribution. This research endeavours to do this by providing a framework for voice to guide non-Māori and Māori alike to put the voice in context.

After reflecting on the inherent challenges in independent and original research, the next section explores potential relationships between Māori and non-Māori in the research process.

### 3.3 RESEARCH WITH MĀORI

The ethics approval process for the research created awareness for the need to pay particular attention to research involving Māori participants. Section 2: 'Treaty of Waitangi' of the Massey University Code of Ethical Conduct stipulates the need to create a relationship of partnership and inclusiveness, while protecting the rights of

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<sup>41</sup> In his 1969 Postscript to the original publication, Kuhn distinguishes between Paradigm 1 and Paradigm 2. Paradigm 1 represents a disciplinary matrix of beliefs, values, techniques, etc. which are shared by the members of a given community. Paradigm 2 represents one aspect or element in the total constellation of Paradigm 1. Therefore, paradigm shifts happen on different scales of relevance (Kuhn, 1996).

<sup>42</sup> Fleck outlines how people belong to a range of different thought groups which shape their thoughts around a specific facet of their lives, such as academic, political, etc. Circulation of thought within and between groups, results in transformation – these transformations cannot always be attributed to one person only. Furthermore thought will be shaped overtime and within time (based on locality) by the historical context in which it originates (Fleck, 1936, 1946/1985).

<sup>43</sup> Ludwik Fleck's ideas will be revisited in Chapter 8.

<sup>44</sup> "Change the way you look at things and the things you look at change" (Dyer, 2009).

Māori in research involving Māori participants (Massey University, 2010). Such an approach seemed intuitively natural and applicable to all participants regardless of their ethnicity. The stipulations in the code prompted the quest for a deeper level of understanding concerning research with Māori.

### 3.3.1 Historical Context for Research Concerning Māori

History more often than not provides insights into the present state of affairs. Tensions in research involving Māori have their roots in the Treaty of Waitangi and the complex processes of colonisation. Even though the Treaty was set out to create a partnership between two peoples<sup>45</sup> by recognising Māori self determination and the protection of taonga including traditional knowledge, implementation took the form of colonisation (Baker, 2009; Smith, L.T., 1999, 2012). As a result, for Māori (like many other indigenous peoples), colonisation led to loss of land, language, identity, culture, voice, dignity and traditional ways of knowing (Durie, 2004; Munford & Walsh-Tapiata, 2006).

“To be colonised is to be defined by someone else and to believe it even though you are confronted daily by evidence to the contrary.” (Smith, L.T. 1992, p. 8). Colonisation of research ‘on’ rather than ‘with’ Māori has created the potential for tension between researchers and the researched. In *Decolonizing Methodologies*, Linda Tuhiwai Smith observes “The word itself, ‘research’, is probably one of the dirtiest words in the indigenous world’s vocabulary” (1999, p. 1).<sup>46</sup> The ongoing concern is that as western researchers gain traditional knowledge through research, there is a risk that indigenous or traditional knowledge is misappropriated. It becomes the researcher’s knowledge and moves out into the public domain (Battiste, 2008; Battiste & Youngblood Henderson, 2000; Smith, L.T, 1999). For Māori, however, knowledge (even though it might be communally held), is considered to be a private good with the explicit purpose to benefit the Māori community (Jahnke & Taiapa, 2003; Stokes, 1992; Walker, 1996).

These sentiments can have a paralysing effect. However, they also present an opportunity to find ways of collaborating in a more constructive way. On one hand, there is an imminent risk of missing another level of meaning, as knowledge embedded in one worldview cannot always be understood when viewed from the position of a

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<sup>45</sup> On a Personal Note: On Treaty and Two Peoples: As I gained a deeper understanding of the tribal nature of Māori society, I have started to wonder whether or not this is a fundamental flaw in the perception of the relationship between Māori and the Crown. This was not a Treaty between two peoples as we understand it in the modern context, but a Treaty between the Crown as one entity and multiple independent tribes or nations and sub-tribes or clans (hapū were signatories to the Treaty in many cases) that sought to protect their self-determination.

<sup>46</sup> In the 2012 update of her book on Decolonising Methodologies she notes that this sentence has become the most frequently quoted sentence out of her book (Smith L.T., 2012).



different cultural framework of beliefs and values (Jahnke & Taiapa 2003). On the other hand, there is the opportunity to expand one's views (the process of 'verstehen', see below) to include alternative approaches to the life-world. Acknowledging their origins can help the building of mutual trust and learning. The literature provides examples for different research approaches, guiding principles and questions.

### **3.3.2 Options for Research Involving Māori**

As Māori asserted their position in regards to Mātauranga Māori, ownership of knowledge and research, a number of methodologies started to emerge, many led by the health and education sectors. Methodologies have been developed along a continuum, with kaupapa (proposal, programme, theme) Māori research being at one end of the spectrum and western science at the other. One of the questions is whether traditional knowledge should be applied in parallel to western science or in association with science (Durie, 2004). The following four possible approaches are indicative of current practice.

#### **3.3.2.1 Kaupapa Māori**

In the academic context kaupapa Māori is described as research with, for, and by Māori. It is anchored in the cultural value system and worldview of Māori (Cram, Phillips, Tipene-Matua, Parsons, & Taupo, 2004; Harmsworth, 2005; Smith, L.T., 2000). Research boundaries can be fluid and the researcher has to devise the methodology as the situation (context) demands (Carr & McCallum, 2009). Generally, a kaupapa Māori approach comes at the exclusion of non-Māori researchers. Bishop (1996), however, makes the point that excluding Pākehā from research with Māori is as undesirable as allowing Pākehā to have sole control over the research process. Excluding Pākehā from the research with Māori would negate their responsibility under the Treaty to work in partnership. Historian Angela Ballara observes that the New Zealand identity is increasingly being shaped by Māori cultural phenomena. As a consequence, she suggests that Pākehā should be involved in the documentation of the ongoing interactions where they shape the overall generic picture. Findings specific to iwi/hapū on the other hand should remain in their domain of research (Ballara, 2003).

#### **3.3.2.2 Parallel Processes**

The second option, as proposed by Cram et al. (2004), is a parallel process by Māori for Māori and with Māori, running alongside a western approach. The approach was developed based on the needs of Māori researchers and communities involving a

research team comprised of Māori and non-Māori. Research insights resulting from the two parallel research streams are brought together at predetermined points and explored through “Constructive Dialogue – Whakaetanga Kōrero” (Cram et al., 2004, p. 15). The process acknowledges the right of Māori to assert themselves in the research process, while also acknowledging that Māori today live in a mixed society. It highlights the possibility of different research outcomes depending on the cultural lens applied and the mutual need for sense making in the research process (Cram et al., 2004).

### **3.3.2.3 Research at the Interface**

A third type, ‘research at the Interface’, is proposed by Durie (2004). He sees this approach as a means to leverage the energy from two systems of understanding. New knowledge can be created at the interface to further the development of all without compromising the existing knowledge base (Durie, 2004). In his approach, he follows the tradition of Sir Apirana Ngata who encouraged knowledge generation in the space between traditional Māori knowledge and new western knowledge (Royal, 2009). The space at the interface can be seen as highly political and contested, while at the same time providing a strong reconciling dynamic (Nakata in Yunkaporta & McGinty, 2009). The thinking behind the concept of ‘research at the interface’ resembles the thinking behind the Cynefin (Snowden & Boone, 2007) and the Chaordic (Hock, 1995) models, which also describe a creative and innovative tension at the borders between different states of complexity. Research at the interface is characterised by mutual respect, shared benefits, human dignity, and discovery (Durie, 2004). Research at the interface was the intent of the trans-disciplinary IFS project as it was originally conceived. Bringing different stakeholder interests together in a collaborative process can spark new ideas at the interface. However, as will be shown in Chapters 4 and 7, this requires a capacity to listen and connect on a deeper level by all.

### **3.3.2.4 Cross-cultural Research Approach**

Last, there is the option of a cross-cultural research approach. Cross-cultural research is seen as a means to serve the communities in which the research is based, by shifting power from the researcher to the community. It helps to learn about differences and to address the challenges of the past, present and future. Researchers need to be able to take a step back and be prepared to increase their understanding of Māori perspectives in partnership with the communities (Waldegrave, 1993/2012). One challenge in this approach lies in the documentation of the research outcomes, and how to reconcile them from the perspectives of both cultures (Ahuriri-Driscoll et al., 2007; Baker, 2009). The researcher has to be committed to allow ample time to

conduct cross-cultural research. In many cases it takes longer than the researcher expects and requires the upfront building of relationships (Spoonley, 2003). In essence, cross-cultural research, also described as community-based participatory research, should be built on the principles or '4 R' of respect, reciprocity, relevance, and responsibility (Castleden, Morgan, & Lamb, 2012). The PhD research falls into this category. However, it took some time to arrive in a truly cross-cultural space in collaboration with Te Kāuru in the development of the RMPF. I had to learn to step away from setting an agenda to arrive at outcomes that would confirm the validity of a western framework – such as a RMPF. And then I had to learn how to deal with a result which was very foreign to my way of thinking. This process is described in Chapter 6.

### ***3.3.2.5 Guiding Principles and Questions for the Researcher***

Essential to all four research options as described above, is the relationship between researcher and Māori. Graham Smith (1992) categorises these interactions in four models. The first one, the 'tiaki' (mentoring role) model is a mentoring model in which authoritative and experienced Māori guide and mediate the research enterprise. I was very privileged to have several mentors. Dr Huhana Smith acted as 'tiaki' beyond the duties of a cultural co-supervisor by opening opportunities outside the immediate research project to learn about Māori culture and customs. These opportunities included, apart from a series of very informative hīkoi (walks or field trips), one of the highlights of the research. A week spent in a marae (traditional Māori meeting space and associated buildings) kitchen, helping cater for a wānanga, taught me how everything works like clockwork without a visible demand and control structure. It became clear in the course of the week that there are defined roles and a well-practiced rhythm on marae that enable the communities to function at high levels of efficiency. This seemingly effortless working together has also been described by Anne Salmond (1975/2005). At the same time, the kitchen is the hub for news and a breeding ground for decisions to be made later in a more formal setting on marae.

Jenny Mauger from Te Kāuru played a similar role by facilitating encounters with iwi/hapū in the Hawke's Bay Region that provided many learning opportunities about traditional approaches to monitoring the health of rivers and streams. One recurring theme during these encounters was the need to 'heal' relationships between tangata whenua (people of the land) and their environment and between tangata whenua and the wider community. Marokopa Wiremu-Matakatea and Rob Warrington from Muaūpoko taught me patience and new ways to 'listen' through simultaneous listening, looking, and sensing.

The second model of interaction is the 'whāngai' or adoption model, in which the researcher is 'adopted' by the community or whānau to the extent that they are considered to be part of the community (Smith, G. H., 1992). This evolution of whānau from a descent group or extended family into groupings of people with shared interests has evolved over time (Metge, 1990, 1995).

The third, power sharing, model sees the researcher seek assistance for his or her research endeavours from the community.

Last, the empowering outcomes model describes a research relationship in which the outcomes from the research benefit Māori first and foremost (Smith, G. H., 1992).

My relationship with Te Kāuru has elements of all models. I was invited to join the Te Kāuru team and work alongside everybody else for the river. As a member of Te Kāuru I was also allowed to attend the hui-ā-iwi organised by MRLF. When I asked Te Kāuru to help me with my research, consent was given willingly that I could make the RMPF process part of my research. In return, my involvement helped build some new skills in the team of how to apply for funding and implement river improvement projects.<sup>47</sup>

Over time it became very obvious that research with Māori must be meaningful and add value. Doing research simply for the sake of knowing is considered pointless (Bevan-Brown, 1998; Stokes, 1992). Linda Tuhiwai Smith (2000) provides the researcher with a set of 8 questions. Working through the questions, allows framing the research and helps manage expectations proactively.

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<sup>47</sup> Research with Te Kāuru was enabled by the IFS workshop process but evolved outside the three IFS sub-projects involving RM, Muaūpoko and Ngāti Kauwhata. Findings from the three IFS sub-projects are not explicitly included in this dissertation. However, as project co-ordinator for the sub-projects on behalf of IFS I had a similar experience of inclusiveness and being welcome. This sentiment continued during the RMPF process. An initial indication that I would have to choose to work with one of the groups only, did ultimately not eventuate since we were all working for the benefit of the river.

**Question 1:** What research do we want done?

**Question 2:** Who is it for?

**Question 3:** What difference will it make?

**Question 4:** Who will carry it out?

**Question 5:** How do we want the research done?

**Question 6:** How will we know it's worthwhile?

**Question 7:** Who will own the research?

**Question 8:** Who will benefit?

The need for flexibility in the research approach to accommodate resource and time constraints amongst Māori participants, many of whom participate on a voluntary basis can be challenging for a western researcher<sup>48</sup> (Glynn, 2007/2012; Harmsworth, 2005; Smith, L.T., 1999). Furthermore, research approaches ought to be adapted as the level of understanding among the non-Māori participants and/or researchers increases. Glynn suggests that a non-Māori researcher needs to be comfortable at not being in charge when doing research with Māori (Glynn, 2007/2012). The success of the research outcomes will ultimately be judged by the Māori community participants (Cram et al., 2004).

In summary, research needs to acknowledge Māori as partners of equal standing who contribute knowledge that has been acquired and passed on over generations. While the option to conduct kaupapa Māori is not available to a non-Māori researcher, there is a choice of approaches to work in collaboration. This collaboration needs to be for mutual benefit and based on mutual respect and trust.

#### Box 3.2 On a Personal Note: Reflection on Research

Reading Eve Tuck's (2013) reflections on the relevance of Linda Tuhiwai Smith's work in 'Decolonizing Methodologies then and now', helped crystallise my underlying sense of unease. On a personal level, I wouldn't want to be treated any differently from what is described as the way to do research with Māori. So the proposed approaches for research with Māori appear to be common courtesy to me, rather than a major revelation. At the same time, working through the perspectives in the literature helped my process of 'verstehen' that something is amiss when research work is conducted through the lens of only one party.

<sup>48</sup> IFS recognised this issue and included compensation for workshop participation and travel cost in its funding application for the iwi sub-projects.

### ***3.3.2.6 Positioning the Research from a Cultural Point of View***

The above insights from the literature, but also the natural development of relationships with participating iwi/hapū over the 3-year period, resulted in a mix of approaches for the three main phases of the PhD research. Phase I of the research was nested in IFS. IFS provided the platform for relationship building with iwi/hapū participants. Phase II was still loosely connected to IFS, but interactions predominantly happened through the MRLF processes. In both Phases I and II, my role was that of an observer from the outside in. Iwi/hapū had formally given their consent to the PhD research via letters of support that met the requirements of the ethics approval process.

Phase III of the research eventuated as a result of the relationship with Te Kāuru. Initially, the commitment was to join the Te Kāuru Management Team and help with the funding and implementation process related to the MRLF action plan. When all iwi/hapū agreed to work collaboratively on a RMPF for the Manawatū in July 2012, Te Kāuru took the lead and an opportunity arose to expand the PhD research. The opportunity to collaborate with Te Kāuru on their RMPF led to a shift in of the research from the 'outside in' to cross-cultural research. Table 3.2 provides a summary of the approach chosen for each of the three phases and the questions to be answered in each phase.

**Table 3.2: Summary of Research Approach and Purpose**

	Phase I	Phase II	Phase III
	October 2010 – April 2011	July 2011 – Nov. 2013	July 2012 – Nov. 2013
<b>Description</b>	IFS/MRLF Workshops (PhD nested in IFS)	MRLF – Action Plan Funding and Implementation	Collaboration with Te Kāuru RMPF
<b>Research focus</b>	Observer in 7 Workshops to develop Action Plan	Observer in MRLF meetings and hui-a-iwi	Participating in Te Kāuru management activities
<b>Relationship With iwi/hapū Based on H.G. Smith</b>	Power sharing	Pan iwi/hapū RMPF Power Sharing	Te Kāuru RMPF 'Adoption' into Te Kāuru 'whānau of interest' (Empowering Outcomes)
<b>Perspective</b>	Outside in	Outside in	In Partnership Cross cultural research
<b>Control of Research Agenda</b>	IFS/Researcher	MRLF/Researcher	Predominantly Te Kāuru Researcher
<b>Research Purpose Answering the 8 Questions Concerning the Research in Each of the Three Phases (based on Smith L.T., 1999)</b>			
<b>Q 1 What Research do we want done?</b>	The Voice of Māori in integrated freshwater management in the Manawatū Catchment: How are cultural values reflected in the process? What gives voice?	The Voice of Māori in integrated freshwater management in the Manawatū Catchment: How are cultural values reflected in the process? What gives voice?	Voice and iwi/hapū river management planning - how are the two connected?
<b>Q 2 Who is it for?</b>	The river	The river	The river
<b>Q 3 What difference will it make?</b>	Improve the mauri and mana of the river	Improve the mauri and mana of the river	Improve the mauri and mana of the river
<b>Q 4 Who will carry it out?</b>	The researcher together with Iwi/hapū	The researcher together with Iwi/hapū	The researcher - however, control of the process rests with Te Kāuru
<b>Q 5 How do we want the research done?</b>	Observations and dialogue	Observations and dialogue	Cross-cultural, collaborative research
<b>Q 6 How does it add value?</b>	Short-term – insights gained Long-term – mauri and mana improved	Short-term – insights gained Long-term – mauri and mana improved	Short-term – insights gained Long-term – mauri and mana improved
<b>Q 7 Who will own the research?</b>	Insights from the research will ideally be accessible to other iwi/hapū to benefit other catchments	Insights from the research will ideally be accessible to other iwi/hapū to benefit other catchments	Insights from the research will ideally be accessible to other iwi/hapū to benefit other catchments
<b>Q 8 Who will benefit?</b>	The river and iwi/hapū in form of improved mauri and mana The researcher in form of a PhD	The river and iwi/hapū in form of improved mauri and mana The researcher in form of a PhD	The river and iwi/hapū in form of improved mauri and mana The researcher in form of a PhD

Following the positioning of the research in relationship to Māori, the next section addresses the choice of research methods.



### **3.4 METHOD AND EPISTEMOLOGY – CASE STUDY AND ‘VERSTEHEN’**

The affiliation with the trans-disciplinary IFS action research project on the one hand and with Māori on the other hand, shaped the choice of the research methods as the research journey unfolded. The initial choice of the case study method acknowledges the uniqueness of the research in its given context. The inclusion of ethnography following phase I of the research, reflects the cross-cultural nature of the research. The underlying epistemology and method of ‘verstehen’ used in this study encompasses the view that objective, subjective, and critical approaches to creating meaning can be combined in one and the same study. The following section describes how the research design evolved based on insights from the research journey.

#### **3.4.1 Case Study**

Case study research is one form of research used to study social and cultural phenomena (Myers, 2009). Yin (2009, p. 18) defines a case study as “...an empirical inquiry about a contemporary phenomenon (e.g. a ‘case’) set within its real world context”. Case studies are traditionally about process and the documentation and analysis of the outcomes of interventions in the process. They are aimed at answering, ‘how’ and ‘why’ questions. They are not about judging the quality of an output or outcome from the process per se (Cresswell, 2007; Yin, 2009). Case study research can either draw on multiple cases in a comparative fashion, looking for similarities or it can take a more traditional approach to studying only one case. The latter provides the opportunity for more in-depth description of the case and its context (Dyer & Wilkins, 1991; Walsham, 2006).

Given the real world context, researchers have little or no control over the development of a case. A researcher involved in action research is actively engaged and can intervene in the process under study; a case study researcher, however, is positioned on the outside. Rather than following a pre-determined process, case studies are made up by a series of events that provide the author with an opportunity to make observations typically based on interviews and documents. Due to the uniqueness of each case and the author’s perspective of a case, insights from individual cases do not constitute an absolute truth (Checkland, 1985; Myers, 2009). Instead, case studies are about sharing lessons that can possibly be applied in other cases. In trans-disciplinary efforts, case studies provide the real life context, i.e. the practical experiences to inform and evolve abstract models and theory (Baumgärtner, Becker, Frank, Müller, & Quaas, 2008). The specific insights from a case can be used to draw some generally applicable conclusions (Krohn, 2008; Myers, 2009).



As the case unfolded during the first phase of the research, it became apparent that different approaches could be taken to analysing and presenting the data collected during and following the IFS workshops. The following sections describe different approaches to ‘verstehen’ or creating meaning and how the need to create a deeper level of cross-cultural understanding resulted in the adaptation of the case study into a hybrid method combining case study and ethnography.

### **3.4.2 ‘Verstehen’ – Epistemology and Method**

Beginning the research process with the workshops rather than a gradual learning and relationship building with iwi/hapū participants as originally planned, led to an early observation of tensions between iwi/hapū workshop participants and the rest of the group (see Chapter 4). While the observation was made, it was hard to understand what was causing the dynamic. Intuitively, I recognised the need to arrive at another level of ‘Verstehen’.

As described in Chapter 1, ‘verstehen’, understanding or creating meaning, is an everyday occurrence. In a day-to-day context, people tend to test new information against their existing understanding how the world works. It is assumed that existing understanding is right and by and large shared by others. Information that does not fit into the existing understanding can either get completely missed or discarded, as it does not make sense (Hitzler, 1988). In the cross-cultural context of the case study, the day-to-day approach to understanding needed to be taken to another level.

In the research context, the concept of ‘verstehen’ is widely applied in the humanities and social sciences. ‘Verstehen’ is most closely associated with the interpretive approach in the trio of positivist, interpretive, and critical approaches to knowledge generation (Chua, 1986; Orlikowski & Baroudi, 1991), or constructivism in Guba and Lincoln’s (1994) categorisation, which also includes positivism, post positivism, and critical theory. ‘Verstehen’ as an epistemology can be seen to be removed from the claim for objectivity as more than one way of ‘Verstehen’ is possible in any given situation (Ammon, 2008).<sup>49</sup>

Tracing the history of ‘verstehen’ in different disciplines, however, shows a wide application of ‘verstehen’. It can include objective, subjective, and critical approaches. It would go beyond the scope of this research to provide an in-depth overview of

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<sup>49</sup> Or as Toynbee (1972) puts it: “All study whether of human affairs or of non-human nature, is subject to the limitations of human thought, and the first and greatest of these is that thought cannot help doing violence to reality in the act of trying to apprehend it.” (Toynbee, 1972: 485).

applications of 'verstehen'. The following examples are aimed at showing different dimensions of 'verstehen' in regard to generally (quasi-objectively) observable concepts, subjective perceptions of the observer, and subjective perspectives of the observed in different contexts of time and space.

A subjective approach to 'verstehen' can be found in Dilthey's work in the humanities. Dilthey (1972/2010)<sup>50</sup> distinguished between 'erklären' (explaining) and 'verstehen'. While the former concerns the explanation of universal laws in natural sciences, the latter provides understanding as a way to study documents and develop an empathetic understanding of the actors of history, their values, and their contexts (Dilthey, 1972/2010; Johnson & Gray, 2010). This approach was holistic in its endeavour to understand pieces of information in the context of the whole (David, 2010).

'Verstehen' is also seen as an appropriate method for studying human actions as they occur in the social world (Mantzavinos, 2011). 'Verstehen' in social action can be traced back to Max Weber, who used it in reconstructing the objective and subjective rationality of ideal typical actors (i.e. abstracted actors based on the concepts of a culture), in particular social and historical situations. Weber believed that it was possible to balance quasi-objective, shared meanings of a society with the subjective experiences or perceptions of individuals and groups of individuals. At the same time, he recognised the interdependencies between society as a whole and individuals as parts of society (Weber, 1978; David, 2010). Hitzler and Honer (1991) describe 'Verstehen' as 'life-world analysis'; a process of bringing different experiences and worldviews together in order to understand them in a given context. Life-world analysis requires a preparedness to open up to the other. It requires a will to understand and a rejection of the temptation to know better (Hitzler & Honer, 1991).

Habermas evolved 'verstehen' towards 'Verständigung', arriving at meaning through communication. The method of communicative action is anchored in critical theory and draws on Weber's approach to 'verstehen' in social action, and Wittgenstein's theory of language.<sup>51</sup> Communicative action represents a method to develop understanding in

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<sup>50</sup> The origin of 'verstehen' is not a German invention, but can be traced further back in history. Abel (1948) names Giambattista Vico (1668-1774) as the originator of the concept who demonstrated that mathematics and history have a man made (artificial) quality that is absent from nature and based on human understanding.

<sup>51</sup> The later Wittgenstein saw language as an integral part of communities. Language does not exist for its own sake but as part of communities, and can only be understood in their context. As a result, understanding is only possible if one participates in a certain form of life (Nentwich, 2000).

partnership and through dialogue (Habermas, 1984, David, 2010). 'Verstehen' in this context, can be seen as linkage between knowledge (theory) and practice.<sup>52</sup>

#### **3.4.2.1 'Verstehen' in a Cross-cultural Context – The Ethnographic Dimension of the Research**

The key challenge for this research was how to approach the understanding of the culture of Māori. From the outside in, there is the risk that it will be tainted by the interpretation of the person who attempts to describe the Māori culture and its worldview without having lived it (Royal, 2002). Royal's view suggests that unless one lives it, one will only get an analytical/intellectual appreciation of the culture, not the heartfelt understanding of its essence. "The charge of lacking objectivity does not concern me: the so-called objectivity some insist on is simply a form of arid abstraction, a model or a map" (Marsden, 1975, p. 191). Marsden (2003a) further suggests that a worldview is more likely to be reflected through the work of a poet such as James K. Baxter, than the analysis of a researcher. Durie (in Rewi, 2010) states that if researchers want to gain a better understanding of Māori society,

...they must look inside its thought concepts, philosophy and underlying values and avoid interpretation from an outward appearance. They must consider the social structure not just in terms of how it looks but with regard for the likely reasons for it. It will be important to consider the poetry, songs, legends, idioms and forms of speech making. (p. 2)

The researcher is thus presented with two challenges: from the outside in or from within, and from the mind or from the heart.

Geertz (1994), coming from the discipline of anthropology, and quoting Weber, that "man is an animal suspended in webs of significance he himself has spun" (p. 214), goes on to say "I take cultures to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one of meaning" (p. 214). The interpretive method provides the conduit to get inside the concepts used by different cultures. Understanding the concepts of a culture allows an outsider to that culture to describe their experience from the point of view of that culture (Geertz, 1974,

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<sup>52</sup> The difference between knowledge and understanding can be demonstrated by using the example of 'love'. Love can be studied through a multitude of 'lenses' including, but not limited to, the anthropological, sociological, bio-chemical, psychological ones. But only when one falls in love, will one truly understand love (Max-Neef, Elizalde, & Hopenhayn, 1991). At the same time, based on the idea of individual realities, one can safely assume that the understanding of love will take many different forms based on who experiences love in which context and from which basis of personal values, beliefs, and experiences.

1994). This approach to understanding another culture is abstract, it is 'verstehen' without 'einfuehlen' (sensing or feeling) (Geertz, 1974). As early as 1948, Abel made the case that empathetic understanding is impossible to achieve. While it is possible to interpret the meaning of cultural objects like norms and institutions and gain an understanding of past historical events of cultures other than one's own, stepping into the shoes of another person is taking 'verstehen' one step too far (Abel, 1948; 1975/2010).

However, the abstract approach to understanding another culture bears the risk that its concepts are described from the observer's position of rationality. Only experience through participation in their form of life can bring the outsider to a closer understanding of the elusive, i.e. that which is not visibly based in the outward appearance of another culture. This approach creates a middle ground between a purely rational and an empathetic approach (Wikan, 1991). 'Verstehen' in this approach is triggered by the observed context in which an action takes place and the expected reaction based on the cultural concepts.<sup>53</sup> The risk of 'Verstehen' becoming purely subjective can be mitigated through feedback loops provided by the collective of research participants (Ammon, 2008).

Hudson et al. (2010) propose the need for empowered participants and a negotiated space for dialogue. This space between different knowledge systems allows participants to acknowledge, respect, and possibly transform knowledge without compromising the integrity of their knowledge base. Such an approach aligns well with Habermas' method of communicative action, which opens the avenue to the critical approach to 'verstehen' and the possibility to challenge the status quo. Critical research occurs where the researcher operates from an explicit ethical basis, such as equal opportunity or environmental sustainability that motivates the research (Myers, 2009). Recognising the lack of cross-cultural understanding amongst IFS participants resulted in the development of the framework for voice as a tool to guide future projects through the process of creating awareness and understanding of the view of Māori.

Last, it needs to be acknowledged that 'verstehen' is an ongoing process which shapes past and future understanding at the same time. As new insights occur, they lead to a

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<sup>53</sup> The challenge of understanding in a tribal context, such as in the collaboration with Māori, increases as each tribe and potentially sub-tribe (hapū) is likely to display place-based epistemologies. Andreotti and colleagues in their work related to aboriginal epistemologies in higher education, pose four questions to describe the challenge. Whose epistemology should be privileged under what circumstances? How can we make them accessible? How can we learn and internalise them? And as we learn and interpret, are we at risk of further compromising already endangered epistemologies? (Andreotti et al., 2011).

different view of what has happened. Simultaneously they change the outlook on what is happening. *“The mere fact of being where I am, changes me and changes everything else. Discovery is not seeing what there is (that is impossible at any level), but rather allowing oneself to converge towards a continually, freshly created reality”. I am no longer what I was, but what I shall be as a consequence of everything else ceasing to be what it was and becoming what it will be in a constantly renewed dialectical synthesis”* (Max-Neef, 1982/1992, pp. 155–156).

### 3.4.2.2 The Chosen Methods in Summary

My choice of methods was to a certain extent driven by the unfolding of the research. The case study format was chosen as Phases I and II of the research were nested in the respective IFS and MRLF projects, and Phase III was largely controlled by iwi/hapū. Material for the case study originated from observations, interviews, documents, newspaper articles, reports, and e-mails. The insight that contributions made by iwi/hapū participants could not be fully appreciated from the basis of a western understanding of the world resulted in the adaptation of the traditional case study method towards an ethnographic case study. While I recognised that it would not be possible to step into the shoes of Māori, joining the Te Kāuru management team and participating in the RMPF process created an opportunity to experience the application of Māori concepts in the context of the Māori life-world. It enriched the case study by adding participant observations and reflections on the growing levels of ‘Verstehen’.

‘Verstehen’ in the context of this study can be described as the process of endeavouring to interpret or understand events in the case study from the viewpoint of Māori. This understanding needs to be recognised as an approximation, not an absolute ‘Verstehen’. The need for better ‘Verstehen’ in cross-cultural studies involving Māori led to the development of a tool, the framework for voice, to guide future collaborative efforts. Table 3.3 summarises the research approach as it applies for the three phases of the research.

**Table 3.3: Evolution of Methods and Approach to ‘verstehen’**

	Quasi-objective Testing assumptions Identifying cultural concepts	Subjective Participatory (Te Kāuru)	Critical Challenging the status quo
Case Study			
Ethnography			
Framework for voice			
	Phase I	Phase II	Phase III

### 3.5 SUMMARY

This chapter has provided a high level description of the research journey and the key adaptations made over the three year period. It has shown how the PhD research connection with IFS changed, and new relationships with MRLF and Te Kāuru formed the basis for the research. Two inherent challenges to the research were discussed. The first one raised awareness of the fine line between research and project management. The second one questioned to what extent it is possible to create independent and original thought in a collaborative research context. A link to Post-normal science and Mode 2 knowledge generation demonstrated that the issue is recognised more widely and new solutions are being discussed.

The next section of the chapter worked through potential dynamics for a non Māori researcher in research with Māori. It positioned the research as being cross-cultural. The methods section discussed the evolution of the method applied in the research. The method chosen upfront for this research was the case study. Insights gained during phase I of the research showed that a traditional case study approach was too narrow given the cross-cultural nature of the research. As a consequence, the research method was adapted to become a hybrid between a case study, drawing on interviews and documents, and an ethnographic study, learning from iwi/hapu members by actively participating in the RMPF process and joining the Te Kāuru management team. The more participative approach provided a deeper level of appreciation of contributions to integrated freshwater management from the perspective of Māori.

An epistemology and method of ‘verstehen’ is at the core of generating knowledge in this research. However, the process of ‘verstehen’ adopted in the study acknowledges a combination of objectively observable phenomena, subjective interpretations, and the possibility of challenging a status quo. The latter culminated in the development of a framework for voice to guide other cross-cultural collaborations towards a deeper level of ‘Verstehen’.

The next chapter provides a description of the first phase of the case study – the combined IFS/MRLF workshops between October 2010 and April 2011.





## CHAPTER 4. CASE STUDY – PHASE I – IFS/MRLF ACTION PLANNING

This chapter examines Phase I of the case study. Based on outside-in observations and reflections from the IFS action research project in the Manawatū River Catchment, it covers the period from October 2010 to April 2011. The goal of the IFS action research was outlined in the 2010 funding application to FRST, now MBIE as follows: “By 2013 this project team will have assisted Horizons Regional Council (HRC) to facilitate a pathway forward to pro actively manage the freshwater resources of the Manawatū River Catchment” (van den Belt & Forgie, 2010, unpublished).

The research angle/lens applied in this documentation of the IFS/MRLF action planning phase of the case study is the PhD lens. Context, process, and content are described from the researcher’s position as a ‘listener to the voice of Māori (iwi/hapū)’ and an observer on how the voice is captured in solutions and actions for the Manawatū River Catchment.

It became obvious at a very early stage that the actual case study needed to be understood as part of a much bigger story, concerning the river, the land, and the people and their relationships with the river. And while this dissertation is not about telling the bigger story in great detail and to a high standard of accuracy, it touches on some key elements to provide the historical context in which the case study took place. It starts with the introduction of the ‘main character’ in the story, the Manawatū River, followed by the landscape surrounding the Manawatū over time. It gives a brief history of the people in the region and how migration changed their relationships with each other and the Manawatū and its tributaries.

The historical and current context shows the significance of the collaboration between the four participating iwi/hapū groups – Muaūpoko, Ngāti Kauwhata in alliance with Taiao Raukawa, ROM, and Te Kāuru. And last, focussing on the period leading up to the case study, the evolution of IFS and the MRLF, their separate origins, and the case for collaboration are described. Of particular interest is the involvement of iwi/hapū and how their voices are reflected in the MRLF Leaders’ Accord, providing the vision and goals for the IFS/MRLF action planning process described in this chapter.

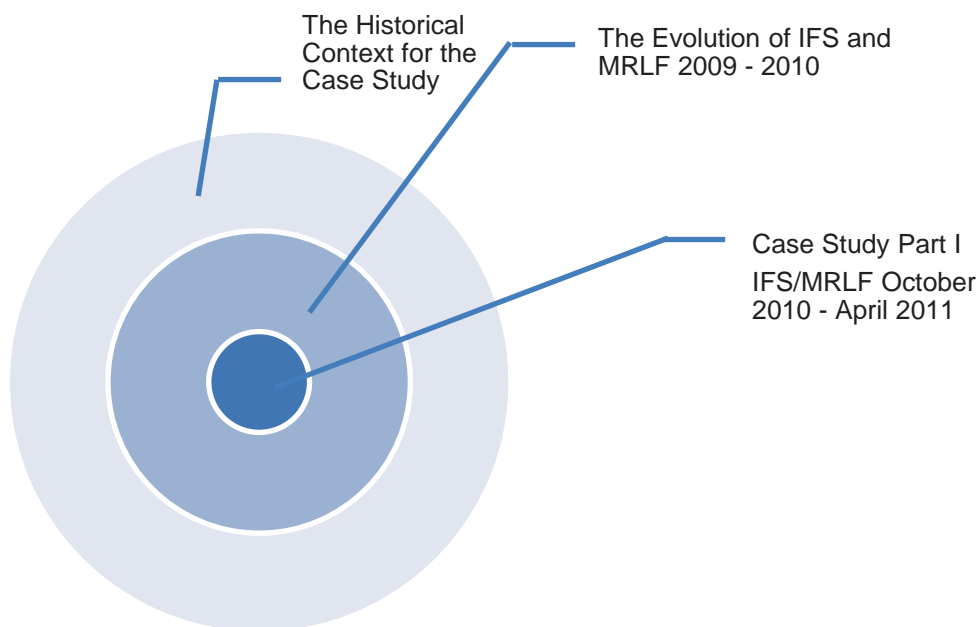
After establishing the wider context, the chapter follows the process of collaboration through the workshops. It looks at external (political) and internal factors that impacted on project progress. It touches on the selection process for workshop participants, as well as the dynamics between participants during workshops. Key areas of concern for



participants are described, including cultural concepts of mauri and mana, the setting of baselines and targets, and the structure and robustness of the action plan. Based on extensive notes from the workshops and feedback gathered in surveys, quantitative aspects of 'voice' are presented.

The narrative then examines content and how the voices of iwi/hapū are reflected in the agreed MRLF action plan. The conclusions and reflections section summarises key insights from this phase of the case study.

Figure 4.1 depicts how the chapter evolves from the historical context through to the actual case study.



**Figure 4.1: How the Chapter Unfolds**

## 4.1 HISTORICAL CONTEXT

### 4.1.1 The Manawatū – The River and the Land

The Manawatū River, located in the lower half of the North Island, is one of New Zealand's more notable rivers. It is the only river in the country that flows east to west, originating on one coast and joining the sea on the other, forging its way through the narrow Manawatū Gorge, also called Te Āpiti by local Rangitāne people. According to oral Rangitāne history, the river bed and gorge were created by the spirit of Ōkatia, a powerful taniwha (spiritual or actual guardian) who lived in a large totara tree on the eastern side. In times long past, the spirit became restless, uprooted its tree and travelled towards the west coast, separating the Ruahine and Tararua mountain ranges (Rangitāne, last accessed March 2014). The Manawatū (still breath), 'a river so wide, deep and cold that it made his breath stand still', was named by Rangitāne Chief Haunui-a-Nanaia who was taken by the river's force and size as he came to its shores in the pursuit of his unfaithful wife Wairaka (McEwen, 1990).

The Manawatū Catchment is one of the most modified in New Zealand. Its nine sub-catchments cover an area of approximately 590 000 ha (Manawatū River Leaders' Forum, 2011). It is populated by about 133 000 people (BERL Economics, 2009). Early settlers coming to the lower ranges of the river would have experienced a combination of dense native forests stretching from the mountains towards the sea via a coastal dune landscape with lakes, lagoons, and Māori settlements. Māori relied heavily on a water-based food economy, including waterfowl, fish, and shellfish. "...eel-preserves' were as valuable to Māori as 'gold-mines are to Europeans' " (Park, 1995, p. 212).<sup>54</sup> The vision of early European settlers to redesign the native landscape in the image of their homelands, combined with the government's rule that balloted land had to be cleared within 2 years, led to radical changes in the late 19<sup>th</sup> century (Park, 1995).

Adkin (1948) describes how as a result, rivers changed from relatively well-defined and narrow channels with generous bush margins to wide beds of shingle, causing erosion during heavy rain falls. The clearing of hill country to create grazing came at the loss of highly productive lowlands due to erosion and flooding. The grazing of formerly well covered sand dunes came at the cost of large-scale sand drifts (Adkin, 1948). The clearing of bush was followed by the draining of the wetlands for a land-based

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<sup>54</sup> New Zealand's natural environment was unique due to the absence of browsing animals (with the exception of the by then extinct moa bird) and the limited modifications brought about by Māori. This changed rapidly under European settlement, with 400–800 square kilometres of land being converted per annum from its original state to pastoral agriculture (Cockayne, 1921/2011).

economy, comprising dairy and sheep & beef farming. Initial flax plantations eventually gave way to cropping and horticulture. Along the Tararua ranges native bush was cleared and replaced with marginal grass land and radiata pine plantations (Duguid, 1990).

Today the once rich biodiversity in the catchment is severely under threat with about 60% of native fish, shellfish, and crayfish endangered (Joy, 2010). Key issues are habitat destruction due to high sediment, high nutrient loads resulting in thick mats of periphyton and algal blooms, river engineering for flood protection purposes, and the introduction of trout (Manawatū River Leaders' Forum, 2011).

#### **4.1.2 People – Tangata Whenua – Waves of Migration and Strands of the Social Fabric**

Before the arrival of Europeans there was no such person as a 'Māori'. People identified themselves through their tribal and local associations, which are reflected in the introduction of a person: Ko... te maunga (...is the mountain), Ko... te awa (...is the river), Ko... te iwi (...is the tribe), Ko... te tangata (...is the man) (Royal, 1992). The principal political unit of Māoridom is the hapū, a collective of closely related whānau. A hapū may be understood as a fluid construct that reshapes itself with the passing of generations (Mildon, 2002). Hapū belong to an iwi, usually the descendants from one eponymous ancestor and the same waka (canoe). However, belonging to an iwi does not mandate acting in the interest of the iwi. Historically, actions rarely concerned the whole iwi and never all of Māoridom (Mildon, 2002). Individual chiefs and their hapū were sufficiently autonomous to pursue their own interests and form alliances as they saw fit at any given time. Each whānau was headed by a kaumātua (elder, adult, leader), with the rangatira (chief) being the leader of the hapū, and the ariki (paramount chief) the leader of the iwi. The construct 'iwi' in negotiations and actions has become more relevant during the later twentieth century and the Treaty of Waitangi Claims process. Many hapū are still stressing their independence.

The history of people in the Manawatū is complex and multilayered. Over the 3 years of the research, it has become evident that the stories and history of the region change depending on who tells them and from what position.<sup>55</sup> Therefore, the following summary does not claim to be an accurate and true account. It is rather an attempt to summarise major events and relationships as described in the literature, in order to

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<sup>55</sup> To me this is a plausible way of looking at history that has many analogies in European history, for example depending on whose history one consults, the battle of Waterloo was decided by Wellington (British view) or Blücher (Prussian/German view).

provide a better understanding of dynamics that have carried through to this time. Some of the dates and events cited in the literature might well change based on new insights gained from the Treaty Settlement process<sup>56</sup>.

Three iwi, all descendants from the Kurahaupō waka that landed on the Mahia Peninsula, were the original tangata whenua, undisputedly holding mana whenua (authority over the land) in the Rangitikei–Manawatū and Horowhenua regions until around 1819: 1) Rangitāne settled in three major areas – Heretaunga, Wairarapa, and Manawatū; 2) Ngāti Apa initially settled on the Tukituki River, but then moved to the Rangitikei and Ōroua rivers and also settled on Kāpiti Island; 3) Muaūpoko, who trace their origins to Ngāti Apa, Rangitāne, and Ngāti Kahungunu, settled in the Horowhenua. Traditional rivalry and conflict in the region before 1819 existed mainly between Rangitāne and Ngāti Apa. Most was driven by the need to acquire and protect food sources to sustain growing communities (McEwen, 1990).

After 1819 waves of tribal migrations from the Waikato and Taranaki areas in the North, together with European settlers, changed the landscape of Māori settlement in the Manawatū. In 1819, Ngāti Toa under the leadership of Te Rauparaha made their first expedition into the Manawatū. An initial alliance, which lasted only until 1824, was formed with Ngāti Apa through marriage. In 1822, Ngāti Toa together with Te Ati Awa returned to the region intending to settle permanently. They met the unsuccessful resistance of Muaūpoko and later Ngāti Apa who resented the capture of Kāpiti Island in 1823 by Te Rauparaha. In 1825 the first wave of Ngāti Raukawa arrived in the Manawatū, invited Te Rauparaha with whom they had family ties through his maternal line. This was followed by the main wave of Ngāti Raukawa and Ngāti Kauwhata in 1829. Te Rauparaha, who had continued to establish himself in the area by conquest, allocated the land between Kukutauaki Stream in the south and Wangaehu River in the north to his northern allies, while Te Ati Awa were given the land to the South of Kukutauaki Stream (Mildon, 2002). Figure 4.2 show the area between Kukutauaki Stream and Wangaehu River.

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<sup>56</sup> Note: The historical links between Rangitāne o Tamaki-nui-a-Rua (Te Kāuru) and Ngāti Kahungunu on the eastern side of the catchment are not included in this section.



**Figure 4.2: The area between Kukutauaki Stream and Wangaehu River**

**Source:** Te Ara the Encyclopedia of New Zealand

<http://www.teara.govt.nz/en/map/223/ngati-raukawa-in-rangitikei-manawatu-horowhenua-and-kapiti>

Acting against Te Rauparaha's explicit request to eliminate all tangata whenua in 1830, Ngāti Raukawa Chief Te Whatanui entered a large-scale peace agreement with all tangata whenua. This ultimately allowed for alliances with tangata whenua in matters of mutual interest and benefit. All tangata whenua, however, were subjected to Ngāti Raukawa. Muaūpoko were given 4500 acres of land on the Horowhenua coast where they settled. According to McEwen, Rangitāne could make a case for never having been conquered in the first place, since Te Rauparaha's fighting was mainly concentrated along the coast, while Rangitāne settlements were located further inland and were almost inaccessible. Interestingly, Rangitāne can also claim Raukawa as one of their ancestors through one of their lines (McEwen, 1990).

Over the next five decades the region was torn apart by constant battles – increasingly of a legal kind – over land. This was partly the consequence of the influx of overseas settlers putting pressure on the Crown to provide land, and partly the settlement of old scores among the tribes in the region. In 1858, Ngāti Raukawa and Ngāti Kauwhata ceded the 250 000-acre Upper Manawatū block to Rangitāne. In Mildon's view, by giving the land back, Raukawa confirmed their mana in a subtle way, making Rangitāne concede through the official acceptance of the land that they lost it in the first place (Mildon, 2002). In 1860 the Rangitikei–Manawatū land dispute evolved. Ngāti Raukawa and Ngāti Kauwhata claimed the land based on the customary rights of

conquest (take raupatu) and gift (take tuku), whereas Ngāti Apa based theirs on customary rights as tangata whenua (take tupuna) and their ability to ‘keep the fires alight’ during occupancy (te ahi ka) (Mildon, 2002).

According to the colony’s first Chief Justice, William Martin: “The signing of the Treaty of Waitangi in 1840 froze ownership of the land to those chiefs and hapū who asserted ownership over it at that moment” (Mildon, 2002, p. 82). However, land more recently obtained under the use of firearms, which were not customary weapons, might disputably be based on international convention not to have fallen under this act. In 1869 the Court ruled that tangata whenua had primary rights over land sold to the Provincial Governor, Dr Isaac Featherston. This was a major setback for Ngāti Raukawa and Ngāti Kauwhata. The years 1869–1873 saw the contest of the Ōroua block. Despite previous promises not to contest the land, both Rangitāne and Ngāti Apa were claiming the block. The Court finally confirmed a split into three parts: with the lower block going to Rangitāne, the middle block to Ngāti Tauira, a hapū descending from Rangitāne and Ngāti Apa, and the upper block of 7256 acres to Ngāti Kauwhata (Mildon, 2002).

Long-standing and unresolved grievances over land loss, but also customary rights, such as fishery rights, are now subject to Treaty of Waitangi claims. At the time of the case study, iwi/hapū in the Manawatū had not yet settled their claims. It was stressed on many occasions, that collaboration in the interest of the river’s health was not meant to cede or create rights in the context of the treaty claims process (Manawatū River Leaders’ Forum, 2011).

Furthermore, tensions can be observed between hapū, trying to re-establish their autonomy and control over their immediate customary lands, and iwi and other tribal organisations that have been founded to represent different interest groups for different purposes. The formation of trusts or other legal (iwi) constructs often create the basis to obtain funds and legitimacy in negotiations with government and other agencies. Many competing organisations and community structures lead to varying levels of complexity and confusion when it comes to regional and local authorities trying to live up to their obligations under RMA and Local Government Act (LGA) from 2002 to collaborate with Māori. It appears to be just as difficult as ever to establish who has the right to speak on whose behalf.

#### 4.1.3 The People and the River – Looking for Common Ground

‘An Uneasy Relationship – Community and River 1941–2006’ (White, 2007) documents a range of interactions between the community and its river. Most of the themes addressed between 1941 and 2006 appear to be as topical today as they were then. A range of issues such as land use and erosion, water pollution from point and non-point sources, river engineering for flood protection, recreational and economic use (such as gravel extraction) as well as the debate over a second bridge crossing the Manawatū in Palmerston North, led over time to the introduction of various regulatory bodies and voluntary collaborations.

European settlement triggered years of river-health deterioration. Issues with raw sewage disposal into the river were recorded as early as 1890 and escalated in the bubonic plague threat of 1900, which attracted the Department of Health’s attention and led to state-of-the-art (for the times) sewage treatment by 1905. By 1930, Palmerston North had outgrown its water treatment capacity and started to experience the impact of increased storm-water runoff. However, a new treatment plant was not opened until 1968, after a long period of deliberation and debate on water quality. By 1985, further upgrades were required (Matheson & Quennell, 2006). In 1998, a Waste Water Community Liaison Group was established to work on the ‘Wastewater 2006’ strategy. It ran focus group meetings with community groups representing education, science, environmental, business, and farming interests. Ultimately it presented seven options for waste water disposal to the community. The communities of Foxton and Waitarere campaigned against discharges into the river, while the community of Himatangi was opposed to discharges to land in their area (White, 2007). A solution with discharge to the river was implemented in 2006. Issues with waste-water treatment continue on Palmerston North’s agenda, with the most recent challenge arising in 2011, when HRC threatened to take the City to court over its waste-water quality (Goodwin, 2011; Rankin, 2011).

For Māori in the Manawatū catchment, the river with its tributaries and wetlands used to be a major source of food, in particular tuna (eel). In addition, it was also of cultural and social significance. In 2006 a group of Māori formed ‘Te Roopu Huirapa’ in response to the granting by HRC of a major discharge permit to Fonterra, New Zealand’s largest dairy cooperative. The ‘Save our River Campaign’ was initiated and 500 people marched through Palmerston North, demanding that there should be no more river-based discharges by 2010 (Mulholland, 2010). In addition to Te Roopu Huirapa, several hapū and three iwi – Rangitāne, Ngāti Raukawa, and Muaūpoko –



were also opposed to the Fonterra permit as it impacted negatively on the mauri of the river. The permit was granted regardless, as was a permit for New Zealand Pharmaceuticals (NZP) in 2008. The latter resulted in a Memorandum of Understanding (MoU) between NZP and Rangitāne (Mulholland, 2010).

The Te Ohu Marae working party, comprising representatives from the marae of Te Rangimārie, Motuiti, Poutū, Aorangi, Paranui, Kererū and Kauwhata, negotiated a compromise with Palmerston North City for the 'Wastewater 2006' strategy. Instead of discharging straight into the river, the City consented to create a small wetland and rockland through which water from the treatment ponds flows on its way to the river. While this arrangement does not have a scientifically proven impact on water quality, it meets Māori custom to involve Papatūānuku (Mother Earth) in the cleansing process of water (White, 2007).

In the 'Te Ao Māori' (The world of Māori) section of its One Plan,<sup>57</sup> HRC acknowledges that "Management of water quality and quantity throughout the Region does not provide for the special qualities significant to Māori" (Horizons Regional Council, 2007b). Historically, HRC had two iwi advisors whose brief it was to develop strategic alliances with the many iwi and hapū in the Region. Te Roopu Awhina, the consortium of iwi formed to liaise with HRC, was abandoned by mutual agreement in 2007, at the same time as the two advisors left HRC (Horizons Regional Council, May 2010).

As far as recreational use of the river is concerned, it has been growing significantly since the 1960s, with both river and riverbanks being contested spaces. On the river the major contestants are jet boat operators on one hand, and kayakers, swimmers, and anglers on the other. On land, horse riders, joggers, bikers, dog walkers, and families enjoying an outing are competing for space. The Manawatū River Users Association (MRUA) was founded in 1973 to mitigate conflicts of interest (White, 2007). MRUA still meets twice a year to negotiate the coexistence of different recreational interest groups.

Five local authorities share the responsibility for the catchment: HRC, which manages land use and water quality; Manawatū District Council (MDC); Palmerston North City Council (PNCC); Tararua District Council (TDC), and Horowhenua District Council (HDC). Their responsibilities concerning the river are defined in the RMA and LGA. For this case study, HRC's One Plan process, which began in 2004 and ran parallel to the

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<sup>57</sup> The One Plan is HRC's integrated planning document for the management of air, land and water.



MRLF collaborative approach, had some relevance. This Plan is an endeavour on HRC's part to integrate air-, land- and water-related planning into one plan aiming for higher environmental standards. This plan was at the Environmental Court hearing stage at the time of the IFS/MRLF collaboration, with many of the forum stakeholders also involved in submissions and hearings for the One Plan.

The historical context highlights the significant ecological and socio-economic changes that have occurred in the catchment due to tribal migration, and in particular, the arrival of European settlers. The landscape has virtually been transformed from native forests and wetlands to replicate a pastoral English landscape. The economy has shifted from being predominantly water and forest based to land-based cropping and farming. The impact on people has been equally significant, with many historic grievances still unresolved. Different customs and values in the relationship to and interaction with the river have characterised endeavours to manage aspects of water quality. The next section looks at the context for the most recent endeavour to find new solutions in managing freshwater in the Manawatū Catchment.

## **4.2 CONTEXT FOR THE EVOLUTION OF THE CASE STUDY**

This section describes the evolution of the IFS research and MRLF Leaders' Accord projects and the decision to collaborate on action planning for the catchment. It outlines the different drivers for the two projects as well as the case for collaboration.

### **4.2.1 IFS Research and Capacity Building among Iwi/hapū**

As mentioned in Chapter 2, the government announced its 'Fresh Start for Fresh Water' initiative in 2009. Freshwater was deemed to be the most important environmental agenda item after climate change. The IFS research concept evolved subsequently in the context of FRST's 'Call for proposals in the Freshwater portfolio' (Foundation for Research Science and Technology, 2009). A proposal for a regional, multi-stakeholder collaboration in integrated freshwater management for the Manawatū Catchment was submitted by EERNZ to FRST (now MBIE) in August 2009 for consideration. The research overview stated: "This dynamic team will develop a tool that will assist regional councils make effective management decisions and gear them towards proactively maintaining and/or improving freshwater ecosystems services" (van den Belt, 2009:3 unpublished). The concept outlined how the project would offer a collaborative alternative to a traditionally adversarial process.<sup>58</sup> It made a case to move

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<sup>58</sup> The research proposal needs to be understood in the context of HRC's One Plan consultation process, which was work in progress at the time.

beyond the traditional reactive, fragmented, freshwater-management process, with its disjointed data collection and modelling efforts and difficulties to take cumulative effects into account. Instead, it proposed to integrate societal, cultural, economic, and ecological factors on a local and regional level. The concept further outlined how Mediated Modelling, a form of system dynamics modelling with stakeholders, and Bayesian Belief Network (BBN) modelling, a statistics-based spatial modelling approach, could provide the basis for collaborative learning and decision making (van den Belt, 2009, unpublished).

The preparedness of a large variety of stakeholders, including HRC, Federated Farmers, industry, local government, environmental and three local iwi/hapū groups, to participate in the research had been established. The willingness of Ngāti Kauwhata (supported by Taiao Raukawa), Muaūpoko and ROM to collaborate on the river was of particular significance since it was the first time the three iwi/hapū groups had agreed to collaborate for the sake of the Manawatū.<sup>59</sup> The research proposal outlined an opportunity to build capacity for Ngāti Kauwhata, Muaūpoko, and ROM through three associated sub-projects (van den Belt, 2009, unpublished).

FRST's approval of the initial concept and invitation to submit a more comprehensive research proposal led to further dialogue with interested stakeholder groups. During a hui (meeting with iwi/hapū representatives) in Levin on 5 February 2010 the three iwi confirmed their participation in the overall project as well as in the proposed sub-projects (Schiele, 2010, unpublished).

The discussion with iwi on 5 February highlighted some sensitivity concerning the research and involvement of iwi. It was noted and appreciated by iwi participants that the research was to be done with iwi, not about iwi. The discussion established that IFS would have to provide an environment in which iwi could have an 'equal standing' with other participants. It was acknowledged that the history of the three iwi could at times not only lead to tensions between iwi and other participants (for example on conflicting cultural values such as the value of introduced trout versus native fish) but also among the three iwi (Schiele, 2010, unpublished).

The Chairman of HRC expanded on the Council's original letter of support, dated 19

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<sup>59</sup> Note: At this stage Te Kāuru who represented the Eastern Manawatū River Catchment Hapū Collective during the IFS workshops, had not been identified as potential research partners. Te Kāuru, (affiliated with Rangitāne o Tamaki-Nui-a-Rua for administration purposes) represent 11 hapū, based on the eastern side of the Manawatū Gorge. The area represented by Te Kāuru comprises more than 50% of the Catchment.

August, 2009, and provided a Memorandum of Understanding (MoU), dated 1 March 2010, outlining HRC's support and a range of resource commitments. These commitments included the availability of senior decision makers to attend IFS workshops, support in data collection, in-house capacity building in modelling, a financial contribution, and the commitment to assess and, if appropriate, integrate the outcomes from the research in future council planning activities (Horizons Regional Council, 2010, unpublished). Further letters of support were supplied by organisations such as Fonterra, Fish & Game, Ecologic, and Environment Canterbury.

The final research proposal submitted to FRST structured the research project into three major phases:

- Year 1: Setting up of the science, data collection and development of the BBN model, capacity building for iwi through sub-projects, Mediated Modelling, stakeholder, and context analysis
- Year 2: A series of workshops involving all stakeholders, developing the Mediated Modelling model, sharing outcomes from BBN model, continuation of sub-project work
- Year 3: Summary of modelling outputs and iwi sub-projects, development of blueprint and recommendations

The aims of the project were the implementation of an innovative engagement process, using model building as a mediation tool with stakeholders; the development of a set of solutions, based on the shared understanding of system dynamics and trade-offs in the catchment; the involvement of iwi/hapū as researchers and kaitiaki (guardians), articulating Māori values; and last, the development of a blueprint for other regional authorities (van den Belt & Forgie, 2010, unpublished).

Funding was confirmed by FRST in July 2010 for a period of 3 years, between 1 October 2010 and 30 September 2013.

#### **4.2.2 MRLF and River Leaders' Accord**

As mentioned in Chapter 1, a Cawthron Institute report published In August 2009 (Clappcott & Young, 2009) caused a public outcry as it showed extremely bad dissolved oxygen values for the Manawatū River, making it the worst river measured in the study. The ensuing public debate on the state of the river, and the merits or otherwise of the One Plan (McKellar, 2009), prompted the Chairman of HRC to call a leaders' summit. On 15 February 2010, 24 leaders, representing local government, farming, industry, and

environmental groups, were invited to talk about the state of the river (Galloway, 2010a). Not invited to the meeting were iwi, the general public, and the media. Some demonstrators gathered outside HRC's premises in protest. The meeting, chaired by an independent Chairman (who also chaired the Land and Water Forum at the time), agreed that the time had come to collaborate on solutions for the river (Jackson, 2010).

The second Manawatū River Leaders Summit, on 29 March 2010, included representatives from Ngāti Raukawa ki te Tonga (Ngāti Raukawa), Ngāti Kauwhata, and ROM. The leaders at the meeting adopted the whakataukī (proverb) 'Kei te ora te wai, kei te ora te whenua, kei te ora te tangata (translated in official MRLF documents as "If the water is healthy, the land and the people are nourished")<sup>60</sup> as the vision for the Forum. It was agreed to engage with communities over a 3-year period to combine resources in the endeavour to restore the mauri of the river (Manawatū River Leaders' Forum, 2010, unpublished).

Leaders of ROM, Ngāti Raukawa, and Ngāti Kauwhata met on 22 April 2010 to develop a cultural framework and the following four goals to achieve in the process of restoring the mauri of the river:

1. "Maintenance of the Spirit of Okatia – eponymous ancestor and known as 'te taniwha o te awa'
2. Enhancement and re-establishment of cultural areas of significance e.g.: mahinga kai<sup>61</sup>
3. Enhancement and re-establishment of natural communities alongside the Manawatu River and tributaries
4. Enhancement of community awareness of all cultural values of the Manawatu River" (Emery, June 2010)

On 8 June 2010, the *Manawatu Standard* published an article titled "Maori make claims to control river" in which the author provided a summarised update of the state of Treaty claims in the Manawatū Catchment. The article illustrates the desire of resident iwi/hapū to improve the quality of the river and their belief that they could do a better job than Council had done in the past (Manawatu Standard, June 2010).

The final Leaders' Accord (see Appendix 1) was agreed at the MRLF meeting on 12

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<sup>60</sup> It transpired in 2012 that the translation is not correct – a literal translation says "The water is (now) healthy, the land is (now) healthy, people are (now) nourished". For the purpose of this research and dissertation the widely communicated incorrect translation will be used.

<sup>61</sup> Garden, cultivation, food gathering place

July 2010 and signed on 9 August, 2010. With the exception of Federated Farmers, who decided at the last moment not to sign but to publish their own 'Peoples Accord' (Forbes, 2010), all participants signed the Accord and committed to develop an action plan next. Federated Farmers, despite their refusal to sign the Accord, continued their involvement with the Forum into the next phase of action planning.

#### **4.2.3 The Voice of Māori in the Accord Process**

The development of the Leaders' Accord provides the first evidence for the case study on how the voice of Māori can influence the output from a collaborative process. Apart from the fact that Māori custom was acknowledged by opening and closing MRLF meetings with iwi in attendance with karakia (incantation, blessing), the Accord document reflects the voice of Māori in several ways.

In the background section of the Accord, reference is made to the Treaty of Waitangi: "The accord acknowledges iwi and hapu as indigenous peoples, and the range of interests and values connected with the river". In the focus section of the document, reference is made to 'the mauri' of the river. This is repeated under the main goal: 'Our goal is to improve the Manawatu River, the mauri (life force) of the Manawatu River Catchment...' The adopted vision for the MRLF "kei te ora te wai..." is the whakataukī proposed by ROM (Manawatū River Leaders' Forum, 2010, unpublished).

Under 'issues' it is acknowledged that Forum members want, among other things, to 'protect (its = the river's) cultural values'. In the goals section, Goal 1 is: "The Manawatu River becomes a source of regional pride and mana". And last but not least, the document states "The Manawatu River flows through all of us" – this statement is very likely a reflection of the second whakataukī offered in the meeting on 29 March 2010: "Ko te awa ko au, ko au ko te awa" (the river is me, and I am the river) ((Manawatū River Leaders' Forum, 2010, unpublished).

#### **4.2.4 Amalgamation of IFS and MRLF Action Planning**

The emergence and the pace of political MRLF processes and activities presented the IFS research team with the dilemma of whether or not to join forces in the action planning process. IFS had allowed a 2-year period for developing an action plan using Mediated Modelling. MRLF was set to do so within a 6-months timeframe using a traditional facilitation approach and engaging the same group of stakeholders. It was clear to the IFS Team that collaborating with MRLF would potentially compromise the research approach and outcomes. Not collaborating, on the other hand, posed a serious risk of losing the opportunity to engage with the wider stakeholder group due to

the substantial time commitment required to participate in two parallel processes.

IFS, knowing that funding had been approved, outlined its research approach to MRLF during a meeting on 12 July 2010. The proposal was discussed and referred to the MRLF Advisory Group for a final decision on whether or not to collaborate in the action-planning process (Manawatu River Leaders Forum, July 2010, unpublished). The IFS opportunity was further discussed at the first Advisory Group meeting on 6 August 2010, during which the MRLF Chairman outlined the opportunity to use the Mediated Modelling process to facilitate the action planning process. The group had reservations about engaging with IFS and decided to invite the IFS Science Leader to the next Advisory Group Meeting (Manawatu River Leaders Forum, August 2010, unpublished).

On 31 August 2010, the Forum's Advisory Committee decided to collaborate with the IFS project. The compromise reached was to compress IFS data gathering, capacity building, and modelling activities. They were reduced from a planned 2-year period into 6 months, in order to meet the MRLF's goal to come up with an action plan by March 2011. Facilitation was to be shared by the IFS Science Leader and the Chairman of MRLF, who would be jointly responsible for delivering the desired output. This compromise seemed to best accommodate the momentum created by the MRLF and the IFS objective to develop a blueprint for other councils in collaborative and integrated freshwater management.

To summarise, this section described the almost parallel evolution of IFS and the MRLF, one driven by an interest and focus in collaborative research with Māori and other stakeholders, the other by political pressures – but both concerned with improving freshwater management in the Manawatū River Catchment. Examples have been provided how, after initial exclusion from the MRLF, the voice of Māori was reflected in the Leaders' Accord.

#### **4.3 JOINT IFS/MRLF ACTION PLANNING PROCESS – THE ACTUAL CASE STUDY**

Leading on from the wider historical context, and the evolution of IFS and the MRLF, provided in the previous section, this section is concerned with the actual case study – the collaboration between IFS and MRLF and the development of an action plan. It first describes the immediate context for the collaboration and the task at hand. It then looks

at participant engagement, the distribution of participants in regards to their decision-making power and interest, as well as some initial quantitative analysis of the presence of voice in the workshops and participation in the discussion.

This is followed by a description of the evolution and adaptation of the workshop and action planning process. Woven into this, cultural concepts and proposed solutions emerge, and their capture in the action plan is described. The section concludes with a review of the action plan: what participants had set out to achieve and what was delivered. This includes an analysis of the action plan's task list on the type of tasks, their relative position in the adaptive management cycle, their likely impact on the river, and who is involved in the tasks.

#### **4.3.1 The Immediate Case Study Context**

It was agreed from the outset of the action planning process that neither the Treaty Settlement process nor the One Plan hearing process would be of direct consideration for the workshop participants. However, the release of a much 'watered down' One Plan version, without specific targets for nutrient reduction or land capability ratings, in August (Galloway, 2010b) may indirectly have taken some pressure off the group to attempt specific outcomes.

A more direct impact on the workshops was caused by local body elections in early October. The original political sponsor of the IFS project and Chairman of HRC, Garrick Murfitt, was not returned to the Council, but replaced by the Tararua Federated Farmers' President. The overall outcome of the local body elections resulted in half the councillors being replaced. It was recognised by Mr Murfitt as a backlash from the farming community in response to HRC's environmental blueprint, the One Plan (Miller, 2010). Both MRLF and IFS, therefore, lost their immediate sponsor and champion. The new Chairman, Murray Guy, resigned half way through the workshops in January 2011 (Manawatu Standard, 2011). The next Chairman, Bruce Gordon, was elected on 22 February 2011.

The public commitment to the MRLF action planning process ensured HRC continued with the process. However, IFS experienced far less support from HRC than had originally been promised in the MoU, dated 1 March 2010. This increased pressure on IFS and the team's limited resources. They had to handle timeframes compressed from 2 years into 6 months. Data collection workload increased significantly as initially



promised HRC resources could not be accessed. Internal resourcing was restricted to available funding and could not be increased. HRC funds allocated to support the research project were rededicated to pay the Forum's Chairman.

#### **4.3.2 The Task at Hand – Vision and Criteria of Success**

The immediate task at hand for the combined IFS/MRLF project was to deliver an action plan by March 2011. Implementation of the plan was to start from July 2011 onwards. Vision and goals for action were set by the Leaders' Accord (Manawatu River Leaders' Forum Accord, 2010) as follows:

##### **4.3.2.1 Vision**

“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 are nourished”.

Goals:

1. “The Manawatu River becomes a source of regional pride and mana
2. Waterways in the Manawatu Catchment are safe, accessible, swimmable, and provide good recreation and food resources
3. The Manawatu Catchment and waterways are returned to healthy condition
4. Sustainable use of the land and water resources of the Manawatu Catchment continues to underpin the economic prosperity of the region”

##### **4.3.2.2 Criteria for Success**

The key success criteria for MRLF at the end of the 6-months period was an action plan agreed and supported by all members of the MRLF. For IFS, success was about the process and the effectiveness of Mediated Modelling as a key contributor to collaborative learning and resulting output. In the short-term, success would be measured in regards to a shared understanding of the problems and consensus on the course of action. In the medium term, success would be characterised through collaboration in implementing, monitoring and assessing actions. Success would show itself through new working relationships and a change in how decisions were going to be made in the future. Medium-term success would be measured through the extent to which actions would solve a problem either completely or partially or at least lead to some new insights. In the long-term, success would show in the adapting of the model with new information (Integrated Freshwater Solutions Project, 2010b; van den Belt, 2004).



### 4.3.3 Stakeholder Engagement – Selection – Distribution – Attendance – Participation (Voice)

The following section describes aspects of stakeholder engagement. It begins with the selection process. The use of an interest/decision-making power quadrant provides some high-level insights into the dynamics in the group. Quantitative data on attendance of and participation in workshops show the levels of engagement of the various stakeholder groups.

#### 4.3.3.1 Stakeholder Selection

Each of the five key stakeholder groups – Iwi/hapū, Industry and Farming, Territorial Local Authorities (TLA), Environmental Groups, and HRC – were invited to nominate up to four workshop participants<sup>62</sup> plus alternates, which resulted in the following organisational makeup of participants:

Horizons:	3 participants + 2 alternates
Iwi/hapū:	4 participants + 2 alternates
Environment:	4 participants + 2 alternates
Farming & Industry:	4 participants + 1 one off participant at 3 <sup>rd</sup> workshop
TLAs:	3 participants

Since there were more interested parties than places at the table, IFS negotiated with MRLF that observers could attend workshops and provide feedback and input via the actual participants. IFS argued that transparency is key to an effective participatory or collaborative stakeholder process.

For iwi/hapū, the limitation to one participant per iwi or hapū grouping presented at least two challenges. The first challenge concerned iwi/hapū and their role as partner or stakeholder. A partnership approach in the sense of the Treaty of Waitangi should, from an iwi/hapū perspective, ideally have resulted in equal numbers of Pākehā and Māori. Instead, iwi/hapū collectively made up just one of five stakeholder groups. This sentiment was expressed by one of the iwi participants who observed in the midpoint questionnaire<sup>63</sup>: ‘HRC don’t acknowledge that iwi should be involved on an equal or

<sup>62</sup> The limitation of the number of active participants to 20 was based on the science leader’s experience that groups of more than 20 participants become more difficult to accommodate in the Mediated Modelling process (van den Belt, 2004, 2010b).

<sup>63</sup> In total three (a pre-workshop, midpoint and a post-workshop) surveys were conducted with participants around the IFS workshops. Given the interdependencies between IFS and PhD research, the questionnaires were developed in collaboration with the IFS science leader. Questions concerning the voice of Māori in the post workshop questionnaire are my questions. Answers to the questions were obtained through an interview process which was in part

higher level of authority on the river. Iwi are treated as a minority group'. Another participant saw the issue limited not just to HRC but across the board, and suggested in the midpoint questionnaire that 'all stakeholder groups should be invited to state how they saw the role of iwi/hapū in river management in the past and today'.

Each iwi/hapū group sees itself as a unique entity rather than part of an overall iwi/hapū entity or community. The original IFS research plan had taken this into consideration and had envisioned building relationships and trust among the iwi groups through the IFS sub-projects over a 12-months period. Timeframe compression and the limited numbers around the table created the need to collaborate closely without first building trust. This was picked up by at least one non-iwi/hapū participant who commented under Question 6 of the midpoint questionnaire that one of his 'Aha Moments' was the "Surprise how little interaction the various iwi groups have had" (Schiele, 2011a, unpublished). While the pan-iwi/hapū collaboration had been entered for the sake of the river, tensions could be observed on several occasions. An issue of particular concern was the nomination of iwi action owners for actions in contested (=under Treaty Settlement) areas. In the end, the group decided to use the term 'iwi/hapū' as designated action owner for contested areas, and on the instigation of ROM a specific disclaimer was included in the Action Plan <sup>64</sup> (Manawatū River Leaders' Forum, 2011).

The second dilemma existed in capacity building or development of experience. Iwi/hapū had seen the IFS project as a means to build capacity in integrated freshwater management planning processes within their respective constituencies. This was followed through in the selection process for the workshops and resulted in the inclusion of some of the more senior and experienced representatives in observer roles. The relative (in)experience of iwi participants was observed by at least one other Participant, who raised the question "were iwi representatives the right ones" in the post-workshop questionnaire context.

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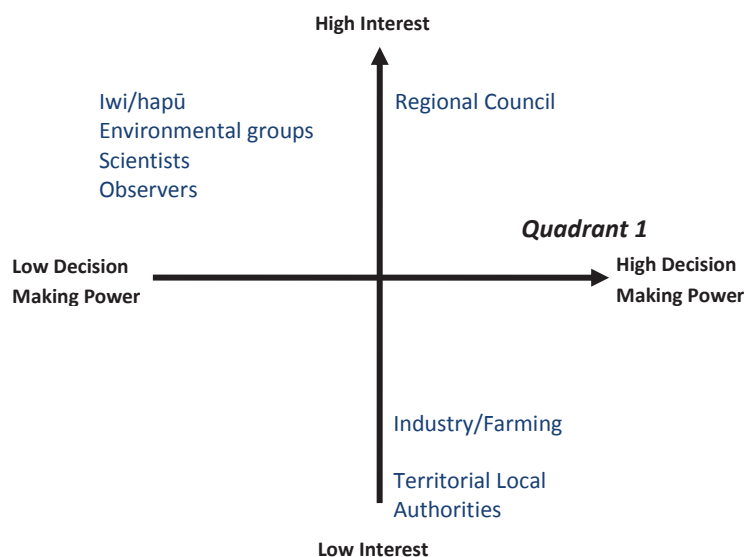
conducted jointly and in part by me, independently. I then transcribed and analysed the material.

<sup>64</sup> All four iwi/hapū groups had signed the Leaders' Accord individually. The four iwi/hapū groups worked together during the IFS/MRLF workshops and developed actions jointly and individually as appropriate. "Whereas it was acknowledged that the Treaty Settlement process would run in parallel and might predicate some action in the future, action planning for the Leaders' Forum was treated as a separate process. Any statements made in regards to cultural values and historical connections to specific areas have been made by individual iwi/hapū as they saw appropriate and have been included in the document as presented" (Manawatū River Leaders' Forum, 2011, p.5).

#### 4.3.3.2 Stakeholder Distribution – The Interest/Decision Making Power Quadrant

The distribution of participants in regards to their levels of interest and decision-making power and thus their ability to influence the process and resulting outputs was another important aspect for the collaboration in the workshops. Participants had been briefed at the outset that the purpose of the workshops was to find common ground in the interest of the river rather than pursue individual stakeholder interests. Figure 4.3 shows HRC as the regulator in the high decision-making power/high interest quadrant. Participating TLAs and Industry & Farming representatives, who also enjoyed relative high levels of decision-making power in regards to affecting outcomes for the Manawatū River, showed far less interest in the process. This was reflected in their workshop attendance (Figure 4.4), and participation in the dialogue (Figure 4.5). One TLA participant supported the observation by commenting in the post-workshop questionnaire that ‘the process was not for everybody’.

Iwi/hapū, environmental group participants, and observers, on the other hand, showed a very high interest in the proceedings and potential actions. However, they had much lower levels of decision-making power and, therefore, a more limited ability to influence the process and output. Their commitment is also reflected in their attendance (Figure 4.4) and active participation in the dialogue (Figure 4.5).



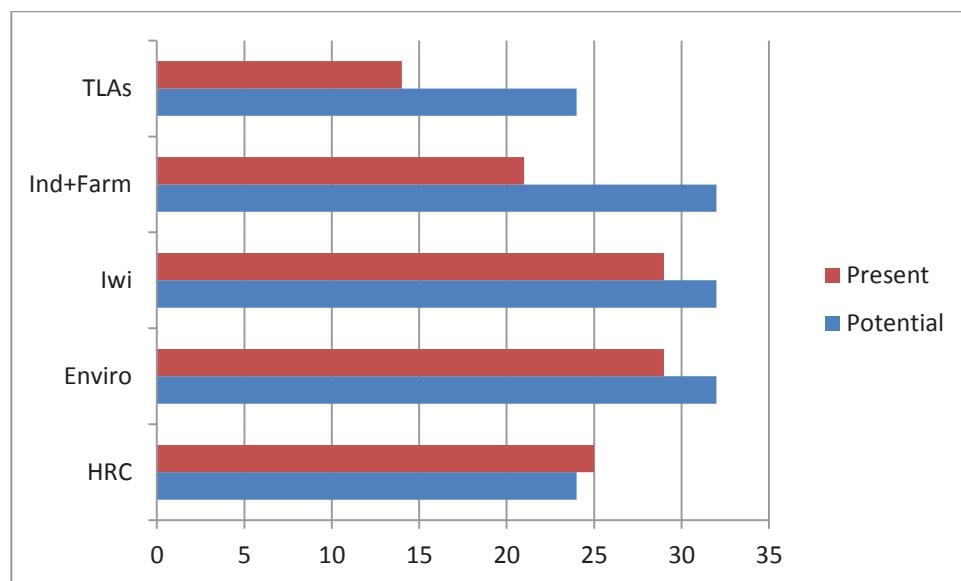
**Figure 4.3: IFS Participant Placement by Interest and Decision Making Power – The Interest/Decision Making Power Quadrant**

**Source:** van den Belt, Schiele, & Forgie, 2013

#### 4.3.3.3 Stakeholder Distribution – Attendance

Looking at Figure 4.4, which compares the potential (theoretically possible) target attendance in workshops with actual attendance,<sup>65</sup> HRC stand out as the group with the highest actual attendance compared to target. Due to the whole team (nominees and alternates) engaging in the additional workshop 7,<sup>66</sup> they ‘over attended’. This commitment was most likely driven by a desire to conclude the workshops with a tangible output.

The iwi and environmental groups, however, while not attending to their full target, had the highest number of actual days in attendance as shown in Figure 4.4. This shows an upfront commitment to the process exceeding that of other groups. This commitment can most likely be attributed to their desire to drive improvements for the river. The TLAs had by far the lowest consistency in attendance and had also chosen not to backfill their decision makers with in lieu participants.<sup>67</sup>



**Figure 4.4: Target Presence versus Actual Presence in Workshops by Groups in Days**  
**Source:** Author, based on workshop attendance sheets

<sup>65</sup> Potential attendance is based on the number of workshop days multiplied by the number of regular participants. Actual attendance was calculated based on the number of days actually attended by participants.

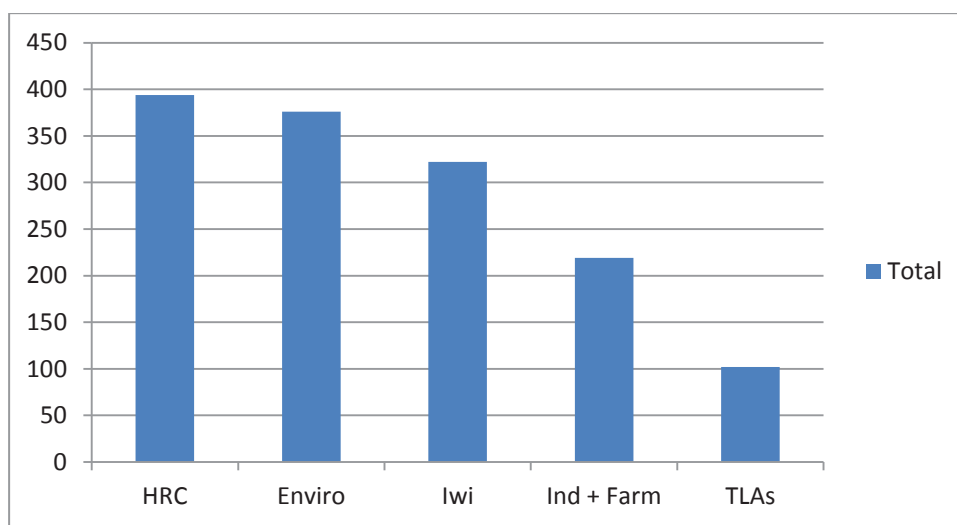
<sup>66</sup> The additional, seventh, workshop, in April 2011 was mainly about editing the final action plan document. The contents of the document had been agreed in the originally planned six workshops.

<sup>67</sup> Note: Since we did not record exact times of attendance, we might have had some overlap between key participant and in lieu participant, or participants may in fact have only been there for part of a day, but have been counted for the full day. The information, therefore, is more indicative rather than absolutely correct.

#### 4.3.3.4 Stakeholder Distribution – Participation – A Quantitative Assessment of ‘Voice’

A quantitative analysis of ‘sound-bites’, that is occasions when participants chose to speak, was done to understand whether or not any group or individuals dominated the discussions throughout the workshops. Data are based on plenary sessions only. No data were collected for the small break-out groups that occurred during workshops.

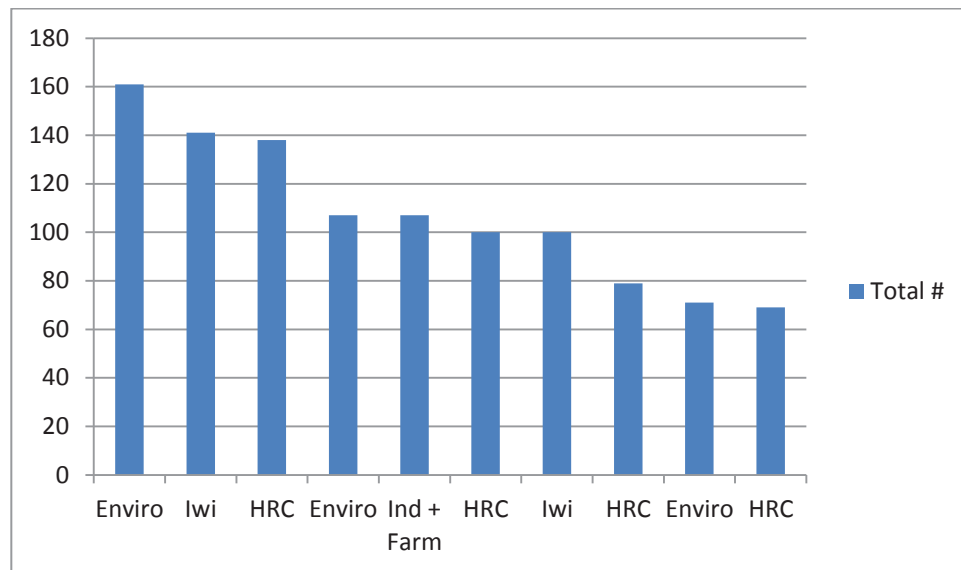
The following graph shows the total number of 1413 ‘sound-bites’ broken down by group over the whole series of workshops. HRC was the most vocal of the groups, followed by the environmental groups and iwi/hapū. The TLA group scored the lowest.



**Figure 4.5: Total Number of ‘Sound-bites’ by Group**

**Source:** Author based on author’s transcribed notes from the workshops

Figure 4.6 looks at the distribution of the top speakers across participating groups. It shows that the iwi/hapū group had two representatives in the ‘top ten’ group. The ‘top ten’ group accounted for 76% of all contributions to the plenary discussions. The TLA group was not represented at all.



**Figure 4.6: Affiliation of Top 10 Speakers (Measured in Number of 'Sound-bites') Throughout the Workshops**

**Source:** Author based on author's transcribed notes from the workshops

Based on the analysis of actual attendance and engagement in the workshops, it can be concluded that iwi/hapū participants held the middle ground among the groups. The next section looks at the workshop process, at how cultural values emerged, and how they are reflected in the final action plan.

#### **4.3.4 Workshops – Process Design and Emerging Cultural Concepts and Solutions**

This section interweaves two main threads – the overall evolution and adaptation of the workshop process and the emergence of iwi/hapū contributions and their reflection in the signed Action Plan. While describing the role of Mediated Modelling in the process, the section does not elaborate on the modelling exercise per se, as this is not the focus of this research.<sup>68</sup>

##### **4.3.4.1 Workshop Process Design**

The objective of Mediated Modelling as a process was to enable transparent and fact-based discussions. Using STELLA as modelling software, Mediated Modelling aligned assumptions and showed the interdependencies between economic, ecological, social and cultural factors. It developed cause and effect loops in the overall Manawatū River Catchment system and built shared knowledge amongst stakeholders. It was agreed at the outset that the effectiveness and suitability of Mediated Modelling for the MRLF action planning process would be reviewed after the third workshop in December 2010

<sup>68</sup> Refer to van den Belt, Forgie, Singh, & Schiele (2014, in review) and <http://www.ifs.org.nz/project-outputs/presentations/>

(Integrated Freshwater Solutions Project, October 2010a). Given the objective to develop an action plan, all workshops had elements of solutions development and action planning. Overall, the high level workshop design was as follows:

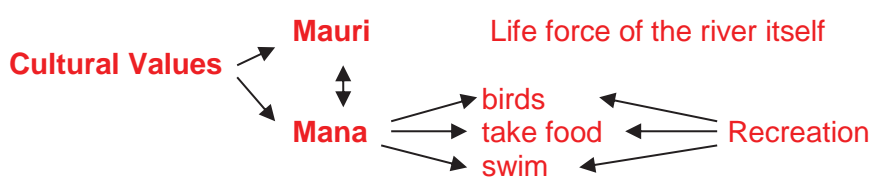
**Table 4.1: Workshop Outline**

<i>Workshop</i>	<b>Intended Content</b>
<b>Workshop 1</b> 20/21 October 2010	Introductions, qualitative model, from goals to indicators, some solutions brainstorming
<b>Workshop 2</b> 25 November 2010	Solutions and targets, towards a draft action plan
<b>Workshop 3</b> 13 December 2010	Economics, time frame, equity, draft action plan
<b>Workshop 4</b> 27 January 2011	Land use, water quality/quantity, indicators and monitoring, review model, draft action plan
<b>Workshop 5</b> 24 February 2011	Social, cultural and ownership aspects, review model and action plan
<b>Workshop 6</b> 24 March 2011	Overall simulation and final action plan

A seventh workshop to finalise the wording of the action plan was added later. It took place on 7 April 2011.

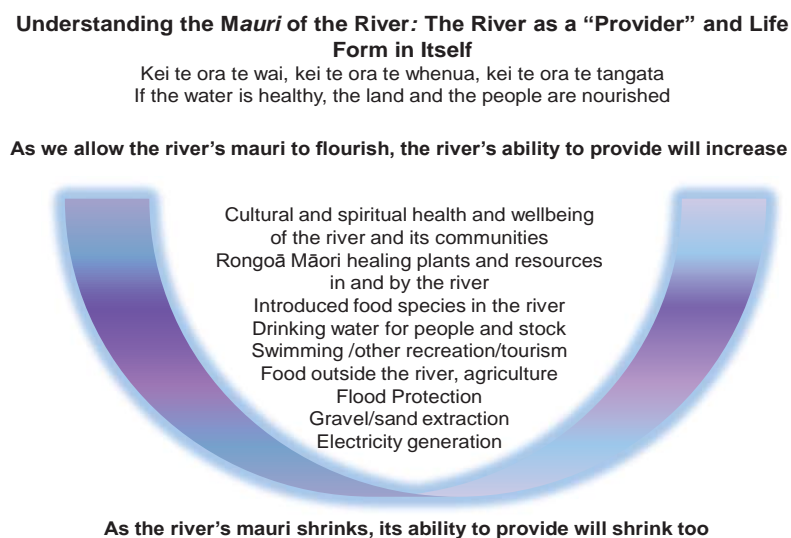
#### **4.3.4.2 Emerging Cultural Concepts – Mauri and Mana**

The first two workshops followed the agenda set by IFS, with small adaptations made on the day. Major discussion concerned the lack of clear baselines and targets for water quality measurements. A need for good science was expressed. Iwi/hapū representatives shared a more holistic approach to freshwater by introducing the concept of managing water from the mountains to the sea, given that everything along the way is connected. Water bodies flowing through Papatūānuku (Mother Earth) were compared to veins in a human body. This concept was used to explain, why it is abhorrent to Māori to introduce human-caused waste into water bodies. The small breakout group on cultural values in the first workshop explored aspects of mauri and mana and returned the following interdependencies:



Indicators to measure mauri and mana were described as ‘the amount of bush that cloaks the river’, and good Cultural Health Index (CHI) results. The CHI is made up of three categories of measurements – significance of a site (historically and today), availability of mahinga kai (traditional food sources one would expect at a specific site) and sensory values such as smell and clarity of the water, presence of rubbish or algae, access, etc. (Tipa & Teirney, 2003; Townsend, Tipa, Teirney, & Niyogi, 2004).

The concept of mauri as the energy and life supporting capacity of the river was further developed in workshops 5 and 6<sup>69</sup> as per Figure 4.7. The curved shape represents a vessel, holding the river’s ‘bounty’. The slightly fuzzy outlines of the shape indicate the mauri. The concept is included in the Action Plan (Manawatū River Leaders’ Forum, 2011, p. 4).



**Figure 4.7: The Concept of Mauri**

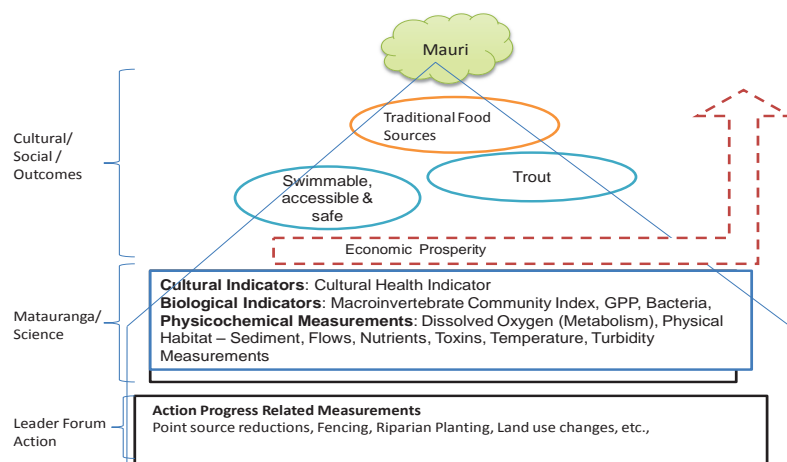
**Source:** Author in collaboration with IFS participants and Dr Huhana Smith

The measurement triangle in Figure 4.8 below was also developed in workshops 5 and 6 to address some of the confusion about the many possible measurements under discussion. It helped build participants’ understanding that all measures and indicators ultimately contribute to the mauri of the river. Absolute values and targets were not developed. However, the measurement framework is included in the action plan in a simplified form (Manawatū River Leaders’ Forum, 2011, p. 24).

<sup>69</sup> This represents one of two occasions at which I ‘intervened’ in the IFS action research process and attempted to clarify a concept. The second occasion was the development of the measurement triangle. In both cases, the resulting images were developed in dialogue with the workshop participants; and in the case of the mauri concept, input from my cultural advisor, Dr Huhana Smith; in the case of the measurement triangle, input from the IFS science leader, A/Prof Marjan van den Belt.



## Outcomes and Indicators: Measurements tools to assess Accord goals



**Figure 4.8: Measurement and Indicator Triangle**

**Source:** Author in collaboration with IFS participants and input from A/Prof. van den Belt

### 4.3.4.3 Emerging Solutions

Attempts to focus the group on innovative solutions and action planning did not provide the desired outcomes during the first two workshops. A number of emerging questions and ideas ended up in the ‘parking lot’:

- Why produce waste in the first place?
- How can looking after the river create new income streams and wealth?
- Formation of a working group to look at the most desirable species mix, including aspects of carbon credits, traditional plants for healing purposes, potential new income streams for hill farmers
- Building the river back from a ‘drainpipe’ (work that over time shortened the length of the river by 8–10 kms) to a more natural flow

Key points brought up in the context of cultural values and iwi/hapū aspirations were the long-term disposal of treated wastewater onto land, co-governance in all matters concerning the river, involvement of iwi/hapū in activities to enhance the value of the river, such as education, and last, the removal of anything ‘four legged’ (deer, pigs, possums, etc.) from forest parks and trout from the river and its tributaries. One of the iwi participants expressed a concern in the first workshop that the action plan might be ‘predetermined’. This was in response to HRC’s position that all problems identified in the modelling dialogue were already under some form of action.

Workshop 3 was dedicated to economics and questions regarding who should pay for actions to clean up the river. Participants who had expressed the greatest interest in the economics workshop were not present on the day. Instead a number of newcomers participated and had to be fully briefed. Decision makers showed their frustration with what they perceived to be a slow process and voiced their concern that not sufficient progress was being made towards the action plan using the current process. Once again, a number of suggestions/questions were not picked up and developed:

- Why pollute in the first place?
- Public/private partnerships with iwi around wastewater treatment
- Allocation of funds becoming available through the Treaty Claims process to help the clean up process

Ultimately, actions from the ‘parking lot’ were brought together by the IFS Team and included in the Action Plan as Appendix B.

#### ***4.3.4.4 Adaptations to the Workshop Process – Acknowledgment of Challenges with Hearing the ‘Voice of Māori’***

HRC exercised their right to review the process after the third workshop and asked the Chairman of the MRLF to take a more traditional action-planning approach. Under this approach, IFS facilitation ceased.<sup>70</sup> The mediated model building was continued by the IFS team in-between workshops. Updated versions of the model were presented and discussed at workshops. This in turn led to further modifications.

In parallel, participants were asked to work on action plans in their respective sector groups during as well as in-between workshops. The consolidation of the various action plans was discussed in the workshops.

Specific questions directed at the iwi/hapū group in workshop 4 were:

- Collaboration in governance has been identified as an aspiration for iwi – what could it look like?
- What actions would increase mana and pride?
- Is the action planning process meeting iwi needs? If not, what would improve it?

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<sup>70</sup> A trade-off can be observed between time required and achievable quality when following a more traditional, time-bound facilitation process compared with a more time-intense mediated modelling exercise. While participants tend to be more satisfied with the outcomes of the latter process, they tend to be less satisfied with the process itself (Stave & Turner, 2009; van den Belt & Schiele, 2011; van den Belt et al., 2013).

The questions indicate that the facilitators had sensed the increasing frustration among iwi/hapū members that their contributions were not 'heard' and captured on the whiteboard. Iwi decided to have a hui outside the workshops and prepare a response to the questions. This response was delivered in a special session for iwi/hapū in workshop 5. It confirmed iwi/hapū discomfort with the process and a sense of being marginalised. The presenters reiterated the values iwi/hapū had already tabled during the Leaders' Accord development (see pages 71/72, and for the full version, Appendix 2).

In a way, this response could be seen as an occasion on which iwi/hapū decided to stand together and deliver their message collectively. It could also be seen as an opportunity missed by iwi/hapū to be more decisive and ambitious in presenting actions that would further their cause. None of the opportunities outlined in workshop 3 were developed further.

Iwi/hapū met again on 4 March to finalise their actions in line with the originally presented goals. The desire to have a senior iwi/hapū liaison person at HRC was discussed, but not pursued any further in acknowledgement that a previous arrangement of this nature had not worked. The ideal liaison person would have to be able to work across all iwi/hapū in the catchment and be seen as impartial. Also discussed was the option to impose land use and care conditions on leased Māori land as leases come up for review. Last, it was agreed that macrons should be used in spelling of Māori words. This convention was adopted in the Action Plan, as were a number of additional whakataukī (page numbers in brackets):

- 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 (5)
- E huahua te kai pai, he wai te kai pai – Humans cannot survive without freshwater (6)
- He pukenga wai, he pukenga tangata – a large gathering of people is like water flooding the land (8)
- Ko au te awa ko te awa ko au – I am the river and the river is me (10)
- He rākau ka hinga i te mano wai – Value life while you have it (24)
- He manga wai koia kia kore e whitikia? – Nothing ventured, nothing gained (25)

The action plan, including a list of 130 tasks, was finalised in workshop 7 and signed on 22 June 2011 by all parties in an official ceremony at Foxton Beach attended by the Honourable Nick Smith, Minister for the Environment.

Following the two threads of evolution and adaptation of the workshops and the emergence of concepts and solutions, it can be concluded that the political agenda took priority over the collaborative research agenda. While some effort went into better understanding the concept of mauri, the capacity of participants to engage in dialogue on more innovative solutions proposed by iwi/hapū and others around the table was limited and all energy was directed at delivering an action plan that could be supported by all the stakeholder groups involved.

#### **4.3.5 Content – Reflections on the Action Plan and the Agreed Tasks**

In this section, the tasks of the action plan are examined from several angles. The first angle looks at the structure of the action plan per se – what did participants set out to do and what was achieved. The second angle analyses the types of tasks (Business as Usual or New) and their position in the adaptive management cycle. This is followed by an assessment of iwi/hapū involvement in tasks.

##### **4.3.5.1 Action Plan – Structure**

Over the course of the workshops, participants moved from a very specific vision of what an action plan should look like to a more generic version with a rather ‘soft’ task list.

In the pre-workshop survey, Question 9 asked participants “What is your definition of a good action plan?” The answers to this question were summarised and shared with participants as follows:

- “Very simple, concise set of goals and objectives
- Achievable, quantifiable and measurable targets
- Specific actions, owners and timelines
- Strategic context is understood
- Cost-benefit assessment has been done”

In preparation for workshop 2, participants were asked to come up with a list of solutions the group they represented wanted to see included in the Action Plan using the following format prepared by the IFS team:

Proposal	Water Quality benefits	Who benefits?	Where do cost fall?	Ball-park cost estimate? (if can do)	Short- or long-term action?

The final format of the Action Plan was much simplified, showing only the tasks, and the leaders and participants in the tasks. All tangibles like timelines, cost and targets for river quality improvements had been removed.

Tasks	Who? (first named being the leader, others participating)
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One of the difficulties for iwi/hapū in the exercise was to name a specific iwi/hapū as the lead for an action where areas of interest – be it geographical or concerning the management of taonga like fisheries – were concerned. In the end, the group decided to use the generic ‘iwi/hapū’ whenever no clear demarcation lines could be drawn; and to name a specific iwi or hapū where the leadership of the task was not contested or contestable.

Despite the departure from the original vision of a more comprehensive action plan, and the compromise in naming a clear leader for pan-iwi/hapū tasks, participants were generally satisfied with the output.

Question 3 in the post-workshop questionnaire asked participants “On a scale of 1 (very low) – 5 (excellent) what is your confidence level right now that the participants in the workshops have arrived at a good Action Plan?” The average score based on a 100% (17 out of 17 questionnaires) participation in the survey was 3.79 out of 5, compared with 2.85 at midpoint. Eliminating those who had not participated in the midpoint questionnaire gave an average of 3.54 compared with 3.09 (for a group of 12 consistent participants across both questionnaires). Iwi participants’ average score at 4 was higher than the overall average at 3.79.

The following is a brief summary of participants’ comments, regarding the strength of the plan:

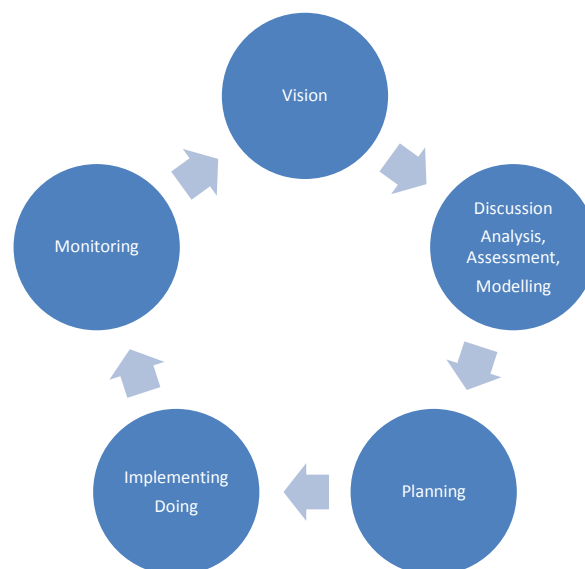
- It is a pragmatic starting point and deals with some of the big issues, like hill country erosion, stock exclusion and riparian planting
- It considers increased community involvement
- Good buy-in from a range of groups
- Actions are achievable
- Catchment approach makes it more specific and creates local ownership
- Good mix of short-term and long-term actions and expected impacts

However, participants also recognised that the plan could have been even better through:

- the addition of specific timeframes and targets (applying the SMART principles)
- the prioritisation of actions

#### **4.3.5.2 Tasks in the Adaptive Management Cycle**

The adaptive management cycle is one of the key concepts promoted by IFS. It helps participants to match actions with stages in the management process. Arguably only actions in the implementation phase have a direct impact on river health. The cycle also shows the iterative nature of the management process, which will ideally go through several phases of adaptation over time as shown in Figure 4.9. The MRLF Accord established the Vision for the Manawatū. The workshops engaged in the Discussion/Analysis/Modelling and Planning phases of the cycle which culminated in the action plan. The actions in the plan itself can be allocated to different phases in the adaptive management cycle, recognising that at any given time, multiple cycles are at work and interact with each other (van den Belt, 2004).



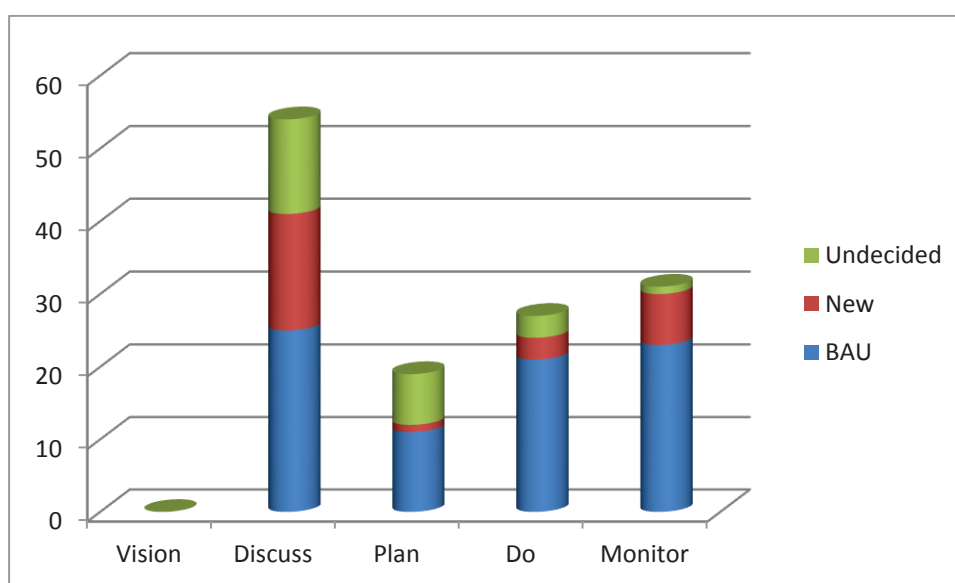
**Figure 4.9: Adaptive Management Cycle**  
**Source:** Based on van den Belt (2004)

Following the concerns voiced by one of the iwi participants that the action plan might have been predetermined by the participating organisations and HRC in particular, an analysis of tasks was conducted. In Figure 4.9 the 130 tasks are first allocated against the five phases of the adaptive management cycle. Tasks in each of the five categories are then subdivided into Business as Usual (BAU), i.e. tasks that had been identified

prior to the MRLF' action planning process, new tasks (New) and undecided, i.e. these latter tasks could fall under either 'BAU' or 'New'. 80 tasks fall clearly under BAU, 27 can be classified as New and 24 could not be clearly allocated, based on the information available.

The most startling insight is how few tasks fall into the action/implementation (26) or planning (19) categories. Most of the tasks fall under further discussion (54) and monitoring (31). Visioning had not taken place, as the Leaders' Accord Vision was directly adapted by the workshop participants. In hindsight, it might have paid to reconfirm and further elaborate on the meaning of the Vision, since a number of participants in the workshops had not participated in the Leaders' Accord development process (van den Belt & Schiele, 2012).

The high number of BAU tasks might not necessarily be a negative for the plan. As one participant put it, "The mere fact that all tasks are now consolidated in one plan and highly visible to the general public, will increase momentum in implementation". A summary of tasks by novelty in the adaptive management cycle is shown in Figure 4.10.

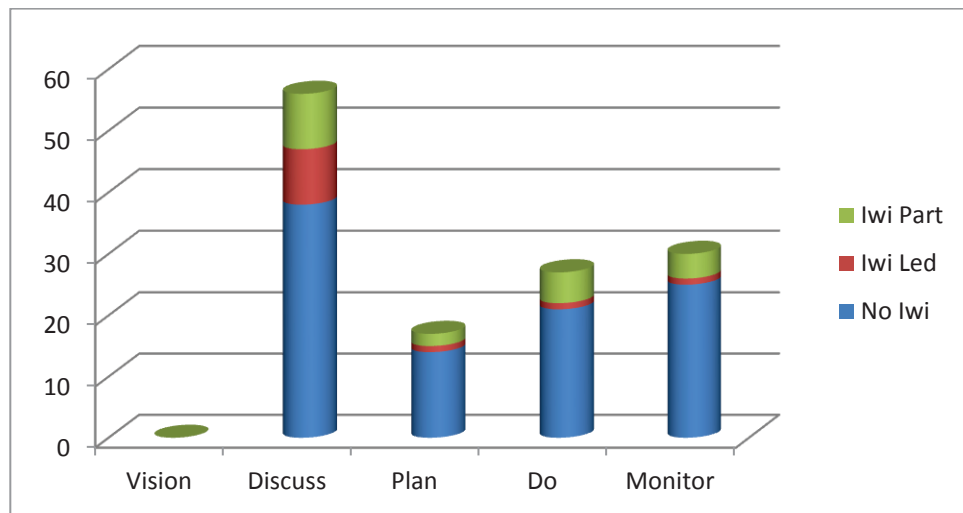


**Figure 4.10: Distribution of Tasks in Adaptive Management Cycle by Novelty**  
**Source:** Author based on MRLF Action Plan

#### **4.3.5.3 Iwi/hapū Involvement in Tasks**

Following from the above, Figure 4.11 depicts iwi/hapū involvement in the adaptive management cycle tasks. Iwi/hapū lead a total of 12 out of 130 tasks and are listed as participants in a further 20. There is no stated iwi/hapū involvement in any of the remaining 98 tasks. Half of iwi/hapū involvement is in the discussion category, with 11

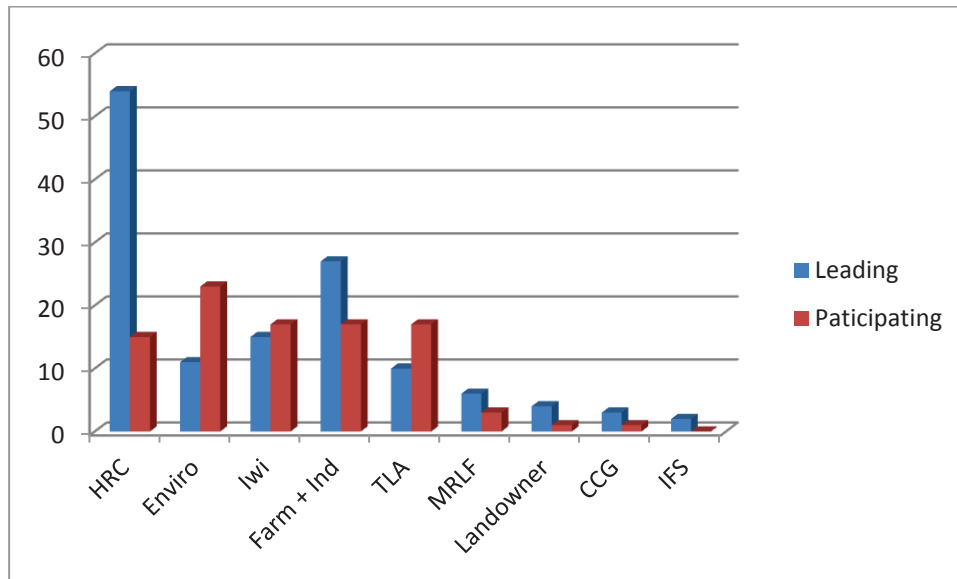
tasks being led by iwi/hapū, and a further 5 seeing iwi/hapū participate. There is no formal agreement on how iwi/hapū should be involved by other leaders of tasks. This can lead to exclusion of iwi/hapū from tasks with which they should be involved. A specific example is the task of identifying fish barriers for removal (planning task). Fish barriers were not only identified, but also removed by HRC without consultation. This issue was raised at the first Kaupapa Day in September 2011 (Schiele, 2011c, unpublished).



**Figure 4.11: Iwi/Hapū Involvement in Adaptive Management Cycle Tasks**  
**Source:** Author based on MRLF Action Plan

Figure 4.12 takes the 130 tasks overall and shows who is leading how many tasks and who is participating. HRC, as the regulator, is leading the largest number of tasks (54) and is involved in a further 12. The Industry and Farming Sector has the second highest number of involvement, leading 28 tasks and being involved in a further 15. Iwi/hapū are more or less on par with the Environment Sector groups, who are directly leading 12 and participating in a further 21 tasks. The involvement of the various groups in the tasks correlates in a way with their position in the Interest/Decision Making Power Quadrant in Figure 4.3.





**Figure 4.12: Distribution of Tasks by Stakeholder Group + MRLF, Landowners, Catchment Care Groups (CCG) and IFS**

**Source:** Author based on MRLF Action Plan

The analysis of the action plan has taken a closer look at the tasks, their position in the Adaptive Management Cycle and stakeholder involvement in the tasks. Iwi/hapū participants expressed a relatively high degree of satisfaction with the action plan, despite the relatively low number of iwi/hapū-specific actions and their relative position in the adaptive cycle. This might well reflect the current capacity of iwi/hapū in the region to get actively involved, but also the relative position in their engagement with the river at this stage.

#### 4.3.6 The Voice of Iwi/Hapū in the Workshops

This section explores aspects of the voice of iwi/hapū during the workshops, based on feedback given in the midpoint and post workshop surveys. It starts with the unprompted comments from the midpoint questionnaire and then looks at the voice-specific question from the post-workshop questionnaire. The most interesting insight from the post-workshop surveys is the discrepancy in perception between iwi/hapū and other stakeholders as to what extent the iwi/hapū voice had been heard.

There had been no specific question exploring the ‘voice’ of participants and iwi/hapū in particular in the midpoint questionnaire; however, there were a number of unprompted references<sup>71</sup> made to voice which led to the question in the post workshop questionnaire:

<sup>71</sup> Note: only questions related to voice are covered here. Material relating to the wider IFS project is covered in the respective IFS reports [www.ifs.org.nz](http://www.ifs.org.nz).

Midpoint – Question 1 – How does the group relate on inclusiveness of different perspectives in freshwater?

- Iwi struggle to get their point across, this is either due to receptiveness of other participants or to capacity of iwi stakeholders

Midpoint – Question 4 – What is working well for you in the workshops?

- Getting participants perspectives of what the river should look like in the future – in particular the iwi perspectives
- The more time the group has, the easier it becomes to talk

Midpoint – Question 5 - What could be done better?

- Iwi need to be more open and less 'behind closed doors'
- The big group discussions have tended to take on the flavour of an early voice or the loudest voice and sometimes I've sensed the group is not always with that direction at first, but gets 'seduced' on board
- Dominance of individual's voice can sway the group

Midpoint – Question 6 – What were your 'aha' moments?

- It came as a surprise, how little interaction the various iwi groups have had

Given the feedback in the midpoint survey, participants were asked in Question 6 of the post-workshop questionnaire<sup>72</sup>:

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<sup>72</sup> Note: Selected insights from the post-workshop survey were presented at the NZFSS Conference in 2012 (Schiele, Mauger, Cribb, & van den Belt, 2012).

'The following question is aimed at establishing how well the 'voices' of different stakeholder groups were heard.

- a. From your personal perspective do you think the voices of the various stakeholder groups were heard throughout the six workshops (please tick the appropriate boxes in the following table):

Stakeholder Group	All the time (4)	Most of the time (3)	Occasionally (2)	Not at all (1)
Environmental Group				
TLA Group				
Iwi/hapū Group				
Farming & Industry Group				
Horizons Regional Council				

Participants ranked the groups as being heard on average as follows:

- |                       |      |
|-----------------------|------|
| 1. Horizons           | 3.53 |
| 2. Iwi/hapū           | 3.35 |
| 3. Environmental      | 3.32 |
| 4. Industry & Farming | 3.12 |
| 5. TLAs               | 3.07 |

Looking at the detail behind the averages revealed that iwi/hapū perceived themselves only to have been heard at 2.5, whereas the rest of the stakeholders rated their voice being heard at 3.56. This is a significant difference, even given the small base to work from.

- b. If you rated one or more of the groups to have been 'heard all the time' can you tell us what gave them 'voice'?

'Voices' were heard due to:

- Presence (attending the workshops)
- Persistence and passion
- Listening skills – if people could respond well to what was going on in the discussion
- Mandate, resources, decision making power
- Bargaining power (Treaty of Waitangi claims)
- Style – well spoken, good arguments, clear perspectives, education
- Facilitation giving people space to participate
- Expectation to be heard
- General willingness of the group to listen
- Potentially also fear of consequences if voice (of iwi) was not heard

- c. If you rated one or more of the groups to have been 'heard not at all' can you tell us why you think they were not heard?'
  - Ignorance
  - Struggle to accommodate what iwi/hapū had to say – too much was filtered out

Several participants made the point in their replies that hearing does not necessarily translate into agreeing with what was heard.

Other comments were:

- Iwi/hapū should have been more specific in saying what they do or don't want
- There should have been at least one workshop on a marae to take people out of their usual environment
- Iwi observers were given more rights (to speak) than other observers

The feedback in the questionnaires highlighted the potential disconnect between engagement in the dialogue and being heard. The actual understanding of what was being said or agreed with did not apply only to iwi/hapū. According to one of the HRC team members, it was a major insight for HRC to realise that what was commonly understood within their organisation, as regards science, was a challenge for participants in the workshops. As a result, HRC continued to modify the way of communicating their science data and information throughout the process.

#### **4.4 SUMMARY – INSIGHTS FROM PHASE I OF THE CASE STUDY**

This chapter looked at the IFS case study through the lens of the PhD research – listening to the voice of Māori throughout the action planning workshops and observing how the voice was captured in the MRLF Action Plan. A context for the case study was provided by first describing the historical relationships between the river, the land, and the people in the catchment. It referenced how the radical transformation of the original forests and wetlands into pastures and cropland impacted on the river. It identified the historic roots of tensions among iwi/hapū and between iwi/hapū and Pākehā on one hand and their endeavours to manage the river on the other hand. Following on from the historical perspective, the context for the lead-up to the joint IFS and MRLF effort was provided. It showed the differences between the IFS research agenda and the MRLF action-planning agenda and the challenges for IFS and iwi/hapū resulting from the compression of timelines for the action planning process from 2 years to 6 months.

After a brief discussion of stakeholder selection and dynamics, quantitative aspects of voice were explored. Based on the analysis of workshop attendance and 'sound-bite' data, iwi/hapū occupied the middle ground between the more vocal HRC and Environmental groups.

Based on feedback given in the post-workshop survey, non-iwi/hapū stakeholders felt that iwi/hapū had been heard on average more than other stakeholders. This was not in line with iwi/hapū participants' perception. By looking at the MRLF Action Plan it was shown that there are some justifications for the less positive iwi/hapū perception. While whakataukī and cultural concepts, in particular around mauri and mana, are captured in the body of the action plan, the task list does not include some of the suggestions made by iwi/hapū in the earlier workshops. They are only listed in Appendix B of the plan. In addition, most of the tasks involving iwi/hapū are in the discussion rather than implementation stage of the adaptive management cycle, which suggests that iwi/hapū require more dialogue in firming up on implementation tasks. This supports the original IFS plan to dedicate the first year to dialogue and relationship building.

Phase I of the case study showed how cultural values were picked up and reflected in the Leaders' Accord and Action Plan. It also provided some insight into what gave voice in the action planning process. At the same time, Phase 1 raised awareness of some underlying issues. The historic background has provided some context for current dynamics and tensions between the various iwi/hapū groups. It has become very clear that there is not 'One Voice of Māori'. This begs the following questions: Whose voice needs to be heard?

The difficulty of hearing the voice and understanding the different cultural concepts surfaced in different ways. For example, it became apparent in the process of finding a way to explain mauri, so that a western audience could easily relate to it. But it was also demonstrated by the difficulty in capturing iwi/hapū contributions in a satisfactory (for iwi/hapū) manner during the workshops. This leads into the question of 'what gives voice' in the context of different worldviews. These questions will be further discussed in Chapter 7.

The next chapter follows the voice of Māori through the funding and implementation process for the agreed actions. It provides observations from the ongoing MRLF process over the period from July 2011 to November 2013. It also describes the on-the-ground experience of funding and implementation provided by the direct collaboration with Te Kāuru.

#### Box 4.1 Insights from the Process of 'verstehen'

- There is not one voice of Māori, but many voices
- Today's relationships between iwi and hapū are deeply rooted in historical events
- Today's pastoral landscape and economy are radically different from the forested lands and water-based economy of Māori pre-European settlement
- Presence at workshops and engagement in the conversation do not necessarily translate into being heard and understood. The concept of mauri and efforts required to make it more accessible is a case in point
- The inclusion of values in the action plan did not extend to the inclusion of more radical solutions aligned with the values in the task list





## **CHAPTER 5. CASE STUDY – PHASE II – FUNDING AND IMPLEMENTATION OF ACTIONS**

This chapter follows on from the observations and analysis in the fourth chapter on the voice of Māori in the collaborative development of the MRLF Action Plan. The first part is written from an outside-in position and summarises observations from the overall funding and implementation process of actions between July 2011 and November 2013. Observations from the MRLF meetings include three hui-ā-iwi. They are woven together with insights gained from the IFS process during this period. The ongoing challenges for iwi/hapū to be heard and included in the funding and implementation processes are shown. Part I concludes with an outline of the opportunity to strengthen the voice of Māori gained in the collaborative IFS/MRLF workshop process through an iwi/hapū RMP process from the mountains (source) to the sea.

The second part of the chapter contains participant observations as it is based on the ‘on the ground’ collaboration with Te Kāuru between July 2012 and November 2013.<sup>73</sup> It starts with insights from the implementation of the Te Kāuru specific actions in the MRLF Action Plan and successful application for community project funds. It shows the high reliance on limited resources and funding opportunities for hapū. It also raises some questions around the difficulties in converting opportunities into action.

### **5.1 FUNDING AND IMPLEMENTATION – OBSERVATIONS FROM THE MRLF PROCESS**

#### **5.1.1 Context**

Chapter 4 described the context for the collaboration between IFS and MRLF and how this collaboration evolved throughout the period of collaborative action planning. The following is an update to the context for the two projects – IFS and MRLF – as the relationships moved into a new phase.

##### **5.1.1.1 MRLF/IFS Relationship**

The MRLF Action Plan was officially endorsed and signed off on 22 June 2011. The official sign-off event started at the Manawatū River’s source with a dawn ceremony and the symbolic filling of a bottle with the clean spring water. It ended with speeches and the signing ceremony at Foxton Beach which was attended by the Minister for the

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<sup>73</sup> Note: The collaboration with Te Kāuru continued beyond November 2013; however, November marks the end of the period covered in the dissertation.

Environment. This time, unlike at the time of signing the Accord, Federated Farmers were among the signatories.<sup>74</sup>

With the end of the workshops, and the signing of the plan, the formal collaboration between IFS and MRLF ceased. MRLF resumed its Forum meetings which included all signatories to the Accord and Action Plan but not necessarily all IFS workshop participants (some of whom had been nominated by a signatory to attend on their behalf). Members of the IFS team were invited as observers to all MRLF meetings between April 2011 and November 2013.

#### **5.1.1.2 IFS Activities**

IFS continued its research with iwi/hapū into the three subprojects on community-based water quality monitoring and co-management. IFS offered one Kaupapa Day (project review day) each in 2011 and 2012 to allow iwi/hapū to share their experiences and research outcomes.

IFS also offered two follow-up workshops to the wider group of participants from the action planning process. The first workshop was held in November 2011. It followed a request by the original workshop participants to work through the economic tools that had initially been the topic of the third workshop, but were not covered on the day. The IFS team presented different tools, such as Cost Benefit Analysis, Economic Impact Assessment, and Ecosystems Services Valuation, to assess economic value.

The second workshop, held in June 2013, addressed 'account-ability' (the ability to account for outcomes) in collaborative processes. It was offered to participants and other interested parties. Like the previous workshop, this was also well attended and confirmed the value of a more hands-on collaborative working group to evolve the thinking and learning. The value of collaborative workshops over and above the MRLF review meetings was explicitly acknowledged by the MRLF Chairman who participated in the 'account-ability' workshop. He made a commitment on the day to find ways to continue the workshops (Schiele, 2013a, unpublished; Integrated Freshwater Solutions Project, 2013).

Two new modelling activities – co-governance and restoration of eel, and flood modelling – were shared. In addition, IFS had taken modelling one step further and developed Multi-Scale Integrated Models of Ecosystem Services (MIMES) for the

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<sup>74</sup> Ironically, they had to break ranks once again – this time with their national organization (Forbes, 2011).

Manawatū Catchment instead of BBN.<sup>75</sup> The MIMES approach depicts land-use changes and resulting impacts with the help of maps. The running of different scenarios results in immediately visible changes in the maps. This makes it easier for participants to perceive the potential impact of decisions. Whilst enhancements to modelling were shared, participative modelling did not take place during the final two IFS workshops (Integrated Freshwater Solutions Project, 2013).

In addition, IFS workshop participants were invited to contribute as presenters to a related EE course offered by EERNZ as part of the Massey University summer course curriculum in 2012, 2013, and 2014. Muaūpoko hosted students from each course and provided an insight into their community monitoring project and related cultural values. Output from the IFS activities was brought together on the IFS website [www.ifs.org.nz](http://www.ifs.org.nz) and made available to the wider public.

#### **5.1.1.3 MRLF Activities**

Between July 2011 and November 2013, the MRLF met eight times (see the Case Study Timeline in Appendix 3 for a complete list of dates). MRLF meetings were sponsored by HRC and chaired by the Chairman of the Forum. The purpose of the meetings was to report back on progress, make decisions around funding and award applications, and media releases. Meetings were usually well attended, with an average of 30–40 participants across all sectors. Iwi/hapū participation was consistently high over the period. A fifth iwi group, Ngāti Apa, officially joined the Forum in November 2013.

In 2012, HRC also held two hui-ā-iwi with iwi/hapū signatories to the Accord. These hui preceded full MRLF meetings by about two weeks and were exclusive to iwi/hapū and HRC staff. A third hui-ā-iwi took place in September 2013. The purpose of the hui was to build better relationships with iwi/hapū. I had the privilege to attend the hui-ā-iwi on invitation of Te Kāuru. Reference to these hui is made in more detail in the following sections. In addition, HRC held regular one-on-one meetings with iwi/hapū and other MRLF signatories. The one-on-one meetings are outside the scope of the case study.

In summary, the formal collaboration between IFS and MRLF ceased with the signing of the Action Plan. Both continued their respective research and action implementation efforts. Contact between IFS and MRLF was maintained through two IFS workshops

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<sup>75</sup> MIMES modelling was undertaken with representatives from one economic modelling company, three crown research institutes, Department of Conservation (DOC) and MfE, as well as representatives from four regional councils. HRC chose not to participate.

and eight MRLF meetings, as well as wider stakeholder interaction, in particular with iwi/hapū. Given the quasi-parting of the ways between IFS and MRLF, the following observations regarding the funding process are in the main based on observations during MRLF meetings and hui-ā-iwi as well as on insights from public documents on the process.

### **5.1.2 Fresh Start for Fresh Water Funding**

This section provides a description of the Fresh Start for Fresh Water funding process, which coincided with the successful completion of the IFS/MRLF action planning process. The first LAWF report recommended that the government should offer a clean-up fund to address legacy water quality issues (Land and Water Forum, 2010). Cabinet approved a fund of \$ 15.2 million over a two-year period in March 2011. The aim of the fund was to achieve measurable water quality improvements over this period. Point 38 in the Cabinet paper dated 8 March 2011 stipulates, “Any proposal will be subject to agreement on the outcomes to be achieved by the investment e.g. reduction in the trophic levels index in a lake or a specific amount of nitrogen being removed” (Office of the Minister for the Environment, 2011, p. 8).

The possibility of obtaining government funding to support the actions in the Manawatū River Catchment was first mentioned in the MRLF meeting on 15 April (Manawatū River Leaders’ Forum, April 2011, unpublished). It was decided to await more detail from MfE on the available funds and application process.

#### **5.1.2.1 The Funding Process**

Applications for the fund opened in September 2011; they had to be submitted by 31 October 2011. At the MRLF meeting on 12 September 2011, HRC reported that a meeting with MfE had taken place and that an application for funds was expected to be made for the Manawatū River. At this stage, details for funding criteria had not yet been finalised. Based on what was known HRC proposed to include projects with a fast and direct impact on river quality in the application. It was stipulated during the meeting that projects had to go beyond business as usual. Recipients of funding were expected to match the sought funding with a contribution of the same or higher value. HRC also mentioned that projects concerning monitoring, education, or meetings to discuss issues were unlikely to be funded. MRLF participants authorised HRC to progress with the application. Iwi suggested the inclusion of an application for the development of a shared nursery for native plants in Horowhenua (Manawatū River Leaders’ Forum

September 2011, unpublished) and funds for water quality monitoring based on the CHI.

During the first Kaupapa Day on 21 September 2011, iwi/hapū participants voiced their concern about the extent to which their interests would be equally represented, and to what extent they would be involved in the funded projects (Schiele, 2011a, unpublished). Of particular concern was the morphing of the cultural monitoring based on the CHI into a more generic community river health monitoring activity to be led by HRC. Iwi/hapū participants resolved to get together to discuss funding, including the calculation of in kind contributions by iwi/hapū. In the end, such a meeting did not eventuate due to the short time frames and other competing demands on iwi/hapū time. Most iwi/hapū participants in the ongoing MRLF process volunteered their time to attend meetings and progress actions. MRLF meetings had to be accommodated around jobs, families and other volunteer work. Some of the representatives from environmental Non Government Organisations (NGOs) were in a similar predicament as iwi/hapū – juggling their paid work and volunteer engagement. This was in contrast to other participants for whom the engagement with MRLF coincided with their paid work.<sup>76</sup>

In the introduction to the eventually released official funding application guide, MfE expressed its expectation that “...projects will be led by Regional Councils in partnership with local iwi and other organisations” (Ministry for the Environment, 2011b, p.1). The guide then outlined a number of application criteria, of which the following were of particular relevance to MRLF: successful applicants needed to demonstrate cross-sector collaboration and partnership with iwi/hapū. Projects had to have clear targets in reduction of the level of contaminants or improvements to river health (Ministry for the Environment, September 2011c).

The application form itself requested a list of iwi/partners on page 25 and iwi/hapū stakeholders with direct involvement in the actual projects on page 26 (Ministry for the Environment, 2011d). All ten iwi/hapū signatories to the Accord and Action Plan were listed in the application.<sup>77</sup> The final application submitted by HRC included a project to

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<sup>76</sup> Note: the IFS project had provided some funding for iwi/hapū to attend the IFS workshops through the IFS sub-projects. In addition, money was available to reimburse other participants attending workshops in their own time for their travel expenses.

<sup>77</sup> The following iwi/hapū partners were listed: Te Rūnanga o Raukawa, Ngā Kaitiaki o Ngāti Kauwhata, Muaūpoko Tribal Authority, Te Kāuru, Taiao Raukawa Environmental Trust, Te Mauri of Rangitaane o Manawatu, Te Rangimarie Marae, Te Kuanihera Kaumatua o Rangitāne ki Manawatū, Raukawa District Maori Council, Ngā Hapū o Himatangi.

support community monitoring. The funding application was coordinated by HRC in collaboration with the Chairman of MRLF and with support from TLAs who owned the key projects put forward in the application. There was no direct involvement of iwi/hapū in the application process.

During the next MRLF meeting on 16 December 2011, HRC updated the Forum members that the application of funds amounted to a total of \$ 6.7million and that a decision from the Ministry was expected in early 2012 (Manawatū River Leaders' Forum, December 2011, unpublished). At the MRLF meeting on 28 March 2012, an MfE representative broke the good news that \$ 5.2 million (the highest amount awarded to any applicant) had been allocated to the Manawatū. MfE stressed once again that it expected measurable outcomes from the funded projects over the two year period. At this stage, details of what was going to be funded were not finalised and HRC was in the process of negotiating a trust deed and project details with the Ministry (Manawatū River Leaders' Forum, March 2012, unpublished).

#### ***5.1.2.2 First Hui-ā-Iwi – Outcomes from the Funding Process – Implementation of Actions***

HRC invited iwi/hapū members to attend a special hui-ā-iwi on 18 July 2012. The purpose of the hui was to give iwi/hapū a break down of the funded projects ahead of the MRLF meeting on 3 August 2012, and discuss iwi/hapū involvement in the projects. In addition, HRC wanted to discuss how to progress iwi/hapū-related actions in the Action Plan. A further agenda item concerned iwi/hapū involvement in native fish and whitebait habitat restoration projects (Schiele, 2012a, unpublished).

Iwi/hapū Forum members learnt at the hui-ā-iwi that the Ministry had allocated the bulk of the \$ 5.2 million funding, namely 83% or \$ 4.34 million, to Point Source Discharge projects run by TLAs:

- |  |             |
|--|-------------|
| • Woodville sewage treatment plant (STP) | \$325,000   |
| • Dannevirke land treatment at low flows | \$350,000   |
| • Dannevirke STP upgrades                | \$850,000   |
| • Pahiatua STP upgrades                  | \$550,000   |
| • Kimbolton STP upgrades                 | \$150,000   |
| • Feilding STP upgrades                  | \$1,000,000 |
| • Shannon land treatment at low flows    | \$1,115,000 |

\$300,000 (6%) each were allocated to fencing and environmental farm plans for nutrient management. \$80,000 (1.5%) went to Native Fish Habitat Restoration and Whitebait Habitat Restoration respectively. The remaining \$100,000 (2%) was available to support contestable Community Support projects<sup>78</sup> (Horizons Regional Council, 2012a).

While it can be argued that this allocation was in line with MfE funding criteria, and targeted point source discharges, which are culturally most offensive to iwi/hapū, participants did not quite see it like this. Instead, the general sentiment was that it was ironic that the region received the generous funding due to the strong collaboration and partnership with iwi/hapū signatories to the Action Plan; however there was little consideration of the partner in the development of the proposal and allocation of the funds.

Iwi/hapū participants also felt that they were not sufficiently involved with the decision making concerning the funded projects. For example, iwi/hapū were not represented on the governance group for fund allocation and management. This group was made up of representatives from MfE, HRC, and the Chairman of MRLF. The composition of the governance group was justified by HRC to avoid conflict of interest in the allocation of the money. It was discussed that if iwi/hapū could suggest one representative to represent all iwi/hapū interests, an addition to the governance group could be considered.<sup>79</sup>

One outcome from the meeting was to take a proposal to MRLF to guarantee 40%, equalling \$90,000, of the Community Fund for iwi/hapū led projects. MRLF consequently signed off on this request during the meeting on 3 August 2012 (Manawatū River Leaders' Forum, August 2012, unpublished). HRC also indicated that there would be other opportunities for iwi/hapū through the fencing and riparian planting and habitat restoration projects.

A further outcome from the hui was an agreement to progress the RMPF from the mountains/source to the sea. The development of the framework is described in Chapter 6.

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<sup>78</sup> Note: these figures do not include the contributions made by the project owners. The total value of the projects benefitting from the national funding was just over \$ 30 million. The total of the contestable Community Fund was \$ 210,000.

<sup>79</sup> This request was asking for the impossible given the multitude of iwi and hapū in the region with competing Treaty Claims. To my knowledge, no candidate was put forward.



### **5.1.2.3 *Iwi/hapū Community Funding***

An invitation to submit for community funding went out on 27 September 2012. Applications closed on 9 November 2012 (Horizons Regional Council, 2012b). In this first round, a total of 19 projects asking for more than \$600,000 were submitted. On 19 February 2013 it was announced ten projects had been successful. Five of the ten awarded projects were iwi/hapū led, with three projects going to Taiao Raukawa and Ngāti Kauwhata, one to ROM, and one to Te Kāuru (Manawatū River Leaders' Forum, 2013a). Insights from the Te Kāuru application process can be found in Chapter 6.

There were less than 5 months between the notification of funding and the required delivery of projects at the end of June 2013. The second round of funding opened in April 2013. This time, five projects received funding. Te Kāuru was successful with their two funding applications for Parahaki Island Phase II and the restoration of a popular community swimming hole at Kaitoke near Dannevirke. Once again the funding applications for Te Kāuru were developed as part of the research collaboration. Te Kāuru was the only iwi/hapū group to apply for funding in the second round.

### **5.1.2.4 *Reflection on the Funding Process***

The Fresh Start for Fresh Water funding process could be described as a lucky windfall for the region as it coincided with the successful development of the IFS/MRLF Action Plan. The funding process was controlled by the National Government and not the regional authorities. Its evolution with minimal iwi/hapū involvement indicates a need to find ways to strengthen the voice of iwi/hapū going forward. One challenge to include iwi/hapū in the funded projects was MfE's list of funding criteria. They were tantamount and could not be influenced by the regional authorities.

Another challenge was the fact that many iwi/hapū projects in the action plan were at that time still in the discussion and planning stages of the adaptive management cycle (see Chapter 4). Therefore they did not meet the requirement of making a direct impact on river management quality in the short-term. Yet, the ultimate success of the funding application was partly due to the strong relationships with iwi/hapū. Arguably, HRC could have tried harder to involve iwi/hapū more directly in the application process. There is even an action item in the Action Plan for HRC to provide advice and financial assistance to iwi/hapū (Manawatū River Leaders' Forum, 2011, p. 27). The very short application timeframe allowed by the government and resource limitations at HRC, combined with resource limitations among the many iwi/hapū parties, are likely to have made this difficult.

The need to apply for funds from the relatively small contestable Community Fund put more pressure on iwi/hapū resources. As a result, only Te Kāuru submitted an application in the second funding round.

**Box 5.1 On a Personal Note: Funding and Iwi/hapū**

The funding allocation would prove to be a continuing sore point with iwi/hapū. On one level, one can argue that the funding allocation prioritised projects that benefitted the river directly and in the shortest possible timeframe. Iwi/hapū projects had arguably not the same immediate impact. Since the purpose of the projects was to improve river health, there should have been no issue.

However, on another level, one needs to understand that iwi/hapū have very limited influence on the decisions made by point source dischargers. Sewage treatment processes are not always in line with cultural requirements that would meet iwi/hapū expectations of what constitutes an improvement in river health, mauri, and mana.

Another issue is the perception that those who were the least engaged in the action planning process, namely the TLAs, were benefitting the most. Here, the lines get blurred around who the beneficiary of the funding is – the river or the institutions (including iwi/hapū) who are involved in projects.

### **5.1.3 Implementation of Iwi/hapū Actions**

This section looks at the actual implementation of iwi/hapū-related actions from the Action Plan between July 2011 and June 2013. June 2013 was chosen as review point, as it was the timing of the most formal and comprehensive review of actions during a MRLF meeting in the July 2011 – November 2013 period. MRLF members were asked to submit progress against their actions in written form. HRC staff compiled replies into one consolidated table.

For the purpose of this chapter, actions are subdivided into three action types: actions from the IFS/MRLF Action Plan, actions enabled by the MfE funding and actions resulting from the relationships built during the initial IFS/MRLF workshop process and through the ongoing MRLF review meetings. Chapter 4 identified two concerns with iwi/hapū actions. One is about where the iwi/hapū-related actions are placed in the adaptive management cycle – with most of them still at the discussion and planning stages of the cycle. The second one is about who ultimately owns the actions. Due to the pending Treaty Claims process iwi/hapū participants had chosen not to name

specific iwi or hapū in contested areas. Most actions under iwi/hapū leadership or with iwi/hapū participation in projects led by others fell into this category.

#### **5.1.3.1 Actions in the Action Plan**

Two years after signing the Action Plan, a review of tasks during the MRLF meeting on 19 June, 2013 showed overall that eleven of the 130 tasks had been completed; 75 tasks were described as ‘ongoing’ or ‘underway’. No updates were available for 44 of the tasks, most of which were owned by either the TLAs, the business and farming community, and a couple of the environmental agencies (Horizons Regional Council, 2013a, unpublished). The verbal updates around the table during the meeting indicated that more tasks were under action than had been reported prior to the meeting. The following is a more detailed analysis of the status of tasks involving iwi/hapū.

As outlined in Chapter 4, iwi/hapū are associated with 32 out of the 130 tasks in the Action Plan. Twenty of these tasks are led by HRC or other stakeholder groups; nine tasks are led by iwi/hapū in general; and only three tasks name a specific iwi or hapū as the leader. At the time of the MRLF review meeting, one task led by a named iwi/hapū group, one task concerning a participating named iwi/hapū group, and one task led by HRC had been completed. No update was available for six of the tasks (four of which were led by non-iwi/hapū stakeholders). Three tasks were labelled ‘no action to date’ or ‘not yet achieved’. The remaining 20 tasks were classified as either ‘underway’ or ongoing.

Ten (out of the 20) tasks were linked in the update to a “....collective iwi project to develop a framework<sup>80</sup> for better incorporating iwi perspective in river management. This has included significant consultation with iwi/hapū throughout the catchment” (Horizons Regional Council, 2013a, unpublished). The development of such a framework had been agreed during the hui-ā-iwi in July 2012. At the point of review, however, the RMPF had not yet been finalised.

Arguably, another seven tasks<sup>81</sup> could also be addressed by the RMPF based on their position in the adaptive management cycle. Among these tasks is the identification of fish barriers by 2014 (Manawatū River Leaders’ Forum, 2011, p.36). This HRC- led task with iwi/hapū involvement can be seen as a good example of the need to improve collaboration between HRC and iwi/hapū. HRC reported the successful remediation of 16 barriers in 2011. However, iwi/hapū did not feel sufficiently involved in the process.

<sup>80</sup> Marked as <RMPF> in Table 5.1

<sup>81</sup> Marked as (<RMPF>?) in Table 5.1

This was first voiced during the 2011 Kaupapa Day (Schiele, 2011a, unpublished). An iwi/hapū River Management Plan (RMP) would provide a formal record for iwi/hapū identified sites for remedial work.

All 17 tasks with a potential link to an iwi RMPF fall either under the discussion or planning category in the adaptive management cycle as shown in Figure 4.9. Table 5.1 provides a summary of all iwi/hapū tasks and their categorisation.

**Table 5.1: Detailed Iwi/hapū Progress against Tasks in MRLF Action Plan – 19 June 2013**

Task #	Page #	Actions	Activities	Who	Adaptive Cycle	Status
1	25	Explore opportunities for improved collaboration	There has been a collective iwi project underway to develop a framework for better incorporating iwi perspective in river management (RMPF). This has included significant consultation with iwi/hapū throughout the catchment <RMPF>	HRC, iwi/ hapū, F&G, other MRLF depending on project	Discuss	ongoing
2	25 + 32	Pilot Catchment Care Group in Tararua (2011) Other CCG	-  (ROM investigated PNCC + Pohangina, no progress due to lack of funding)	Fed. Farmers, Te Kāuru	Do	No update  No progress
3	25	Iwi-led Catchment Care Group for Ōroua	Group established in 2011 Community funding (Haynes Creek) in Round 1	Kauwhata	Do	Underway
4	25	Discuss Upper Gorge Management Plan	<RMPF>	Te Kāuru, HRC	Discuss	No action to date
5	26	Discuss Pohangina Management Plan	<RMPF>	ROM, HRC, iwi/hapū	Discuss	Not yet achieved
6	26	Explore opportunities for better iwi/hapū representation in river management	<RMPF>	HRC, iwi/hapū, Office of Treaty Settlement, DOC	Discuss	ongoing
7	26	Discuss iwi/hapū resourcing	<RMPF>	Iwi/hapū, HRC	Discuss	ongoing
8	26	Discuss and produce Cultural area management plans 2012 – 2014; Rāhui, cultural events 2015	<RMPF>	Iwi/hapū HRC, other councils	Discuss	underway

Task #	Page #	Actions	Activities	Who	Adaptive Cycle	Status
9	26	Discuss how to involve iwi/hapū in water allocation and ongoing consent mgmt	<RMPF>	Iwi/hapū, HRC	Discuss	underway
10	26	Discuss how to implement absolute protection mechanism for wāhi tapu sites 2013	<RMPF>	Iwi/hapū, HRC	Discuss	underway
11	27	Foster LTA collaboration	(<RMPF>?)	Iwi/hapū, HRC, other councils	Discuss	–
12	27x	Provide advice and financial assistance	<RMPF>	HRC, iwi/hapū	Discuss	ongoing
13	27	Provide hapū communications directory 2012	Spreadsheet has been uploaded and will be updated on a regular basis	Iwi/hapū (Te Kāuru)	Discuss	complete
14	27	Provide advice on whole farm plans SLUI	48 farm plans have been completed seeing 1121 ha highly erodible land retired and 70 000 ha brought into sustainable management (<RMPF>?)	HRC, iwi/hapū: Te Kāuru, ROM, Kauwhata	Plan	ongoing
15	28	Input into consent applications/ improvements by 2012	10 consents in total, 2 achieved, 6 ongoing 2 no update (TDC, MDC) (<RMPF>?)	HRC, District Councils and iwi/hapū concerned	Discuss Plan?	20% complete
16	30	Improvement for all sewage treatment, with focus on Dannevirke	Upgrade underway as part of cleanup fund project including land based treatment option	HRC, Te Kāuru	Do	underway
17	31	Toxic levels of ammonia	MDC undertaking upgrade of treatment plant (\$ 11m)	HRC, MDC, Kauwhata	Do	underway
18	34	Water allocation, water harvesting, etc. Ōroua	HRC continues to work on the allocation scheme... (<RMPF>?)	HRC, iwi/hapū, Ōroua CCG	Plan	underway
19	35	Apply code of practice to flood protection work	Standard practice	HRC, iwi/hapū	Mon (BAU)	ongoing
20	35	Consider cultural values in river management	<RMPF>	HRC, iwi/hapū	Discuss	ongoing
21	35	Establish Freshwater Fisheries group 2011?	–	Iwi/hapū, DOC, Fish & Game (F&G)	Discuss	–

Task #	Page #	Actions	Activities	Who	Adaptive Cycle	Status
22	35	Identify mahinga kai sites for restoration by 2014	TMI are working with Landcare Research and HRC to identify future sites of significance (<RMPF>?)	CCG, ROM, Te Kāuru, iwi/hapū	Discuss	ongoing
23	36	Identify fish barriers for remediation by 2014	16 fish passages have been installed so far (with little or no iwi/hapū consultation) (<RMPF>?)	HRC, DOC, CCG, Te Kāuru, Ngāti Whakare, ROM	Plan → Do	ongoing
24	37	Public education on native fish	–	DOC, iwi/hapū, F&G	Discuss	–
25	37	Distribute Accord/action plan info as required	–	Doc, iwi/hapū, F&G	Discuss	Te Kāuru complete
26	38	Increase monitoring	ROM have investigated the Managaone stream for potential cultural restoration	F&G, Kauwhata, ROM, iwi/hapū	Mon	No action to date
27	38	Develop CHI	TMI have a database along the Manawatū that could be developed further for this	Iwi/hapū, HRC assistance?	Mon	ongoing
28	38	Establish CHI sites 2013	TMI have a database... (<RMPF>?)	Iwi/hapū	Plan	ongoing
29	38	Implement groundwater monitoring	-	CCG, ROM, Kauwhata, Ngā Hapū o Himatangi	Mon	–
30	38	Investigate causes of poor water quality in Mangatera	The findings of this support the decision to invest in Dannevirke sewage treatment upgrade	HRC, TK	Plan → Do	Complete
31	39	Comply with Ramsar req. in estuary	–	HRC, HDC, DOC, iwi/hapū	Mon (BAU)	Ongoing
32	39	Develop suitable economic measures	–	Fed Farmers, Vision Manawatū, F&G, iwi/hapū	Discuss	–

### 5.1.3.2 Iwi/Hapū Actions Enabled by MfE Funding

While progress against the Action Plan has been difficult and primarily focussed on a discussion/planning level, other more tangible opportunities for action emerged from the MfE funding. Even though the funding process might have been disappointing, it provided some small contributions to actual on-the-ground projects through the Community Fund. In addition, HRC recognised the need to include iwi/hapū in more activities. As a consequence HRC approached iwi/hapū on a one-to-one basis to discuss their involvement in projects funded through the fencing, riparian planting, and fish habitat restoration projects. In total, 10 on-the-ground opportunities materialised for iwi/hapū outside the Action Plan:

**Table 5.2: Iwi/hapū Involvement in Projects Enabled by MfE Funding**

#	Project	Activities	Who	When
1	Parahaki Island I	Rubbish Removal – Reconnecting with the island	Te Kāuru	March 2013 (complete)
2	Parahaki Island II	Weed removal, native plantings, development of a cultural area, preparation to plant traditional gardens	Te Kāuru	July 2013 – June 2014
3	Kaitoki Swimming hole	Weed control, improvement of public access and native plantings	Te Kāuru	July 2013 – June 2014
4	Community Planting Day at the Source	Powhiri at Rākauātāhi Marae, planting at the source (this project was initially seen to be a fund raising opportunity for the marae, but was later opened up by HRC to wider community participation)	HRC, Te Kāuru	July 2013
5	River Access	River Access improvement	TMI	February – June 2013?
6	Tuna restoration	Project in collaboration with Affco to develop an eel habitat	Kauwhata	February – June 2014?
7	Haynes Creek	Riparian planting	Kauwhata	February – June 2014
8	Tokomaru River	Hīkoi and planting	Taiao Raukawa	April 2013 Nov. 2013
9	Whirokino whitebait habitat	Habitat restoration, planting stage II	HRC, Muaūpoko Raukawa?	August 2013
10	Kowhai Park, Levin	Riparian planting – Queen's drain (which drains into Lake Horowhenua)	HDC, Muaūpoko	2013/2014

### 5.1.3.3 Actions beyond the Manawatū – The Lake Horowhenua Accord

For Muaūpoko, the involvement in the Manawatū restoration effort always had limited scope due to the iwi's location on the coast. There is hope that improving the river's water quality will one day result in healthier shellfish beds along their coastline. There



is also some involvement with the restoration of one of New Zealand's largest whitebait spawning areas at Whirokino Bridge. However, the greatest benefit from participating in the process has materialised somewhere else. Thanks to the relationships built with HDC during the IFS/MRLF workshops and the MRLF meetings, Muaūpoko and HDC signed a Lake Accord on 4 August 2013. This Accord creates the basis for collaboration between Muaūpoko, HDC, HRC, and other stakeholders to restore the lake, which is the most important water body for Muaūpoko (Grocott, 2013; Horizons Regional Council, 2013b)

#### ***5.1.3.4 Reflections on the Progress against Actions/Tasks***

Reflecting on the progress against actions, the following points can be made: Overall, the reporting sessions in the MRLF review meetings suggest there is a wide range of activity. However, it is hard to quantify progress and judge whether the right amount of progress is being made. The absence of clear targets, measurable deliverables and due dates, in the Action Plan (as discussed in Chapter 4) leaves room for interpretation.

In the interviews leading up to the IFS 'Account-ability' workshop, the 14 interviewees (recruited from the original cohort of IFS/MRLF workshop participants in the action planning process between 2010 and 2011) gave an average 4.07 (on a scale of 1 strongly disagree to 5 strongly agree scale) rating for the question "The Action Planning and Implementation Process has been successful" (Tadaki, 2013, unpublished). Iwi/hapū participants rated the success slightly lower (3.6) than the overall group.

Iwi/hapū disappointment with progress against actions during the interviews was mainly linked to the funding process and outcome, confirming observations during the process as described earlier in this chapter. A couple of interviewees felt that while dialogue is happening with iwi/hapū, it happens to make councils look good rather than to genuinely develop solutions to address cultural concerns, such as the continued discharge of treated wastewater directly into rivers. Where relationships with councils had been strong before action planning, a weakening of these relationships has been perceived since. Where the relationships had been weak before MRLF, however, they are perceived to be stronger (Tadaki, 2013, unpublished).

#### ***5.1.3.5 Next Steps – Plans for 2014***

At the November 2013 MRLF meeting, HRC and the Chairman of the Forum followed up on a request voiced during the IFS workshop on 6 June 2013 (Integrated

Freshwater Solutions Project, 2013; Schiele, 2013a, unpublished) and addressed the need for a more formal review of progress against actions. It was agreed to ask leaders of the various stakeholder groups to compile a progress report which was to be consolidated in an overall report by March 2014.<sup>82</sup> This report could potentially form the basis for another round of action planning, i.e. the start of a new adaptive management cycle. It was also suggested to have a dedicated Forum review for progress against the first goal in the Leaders' Accord: 'The Manawatu River becomes a source of regional pride and mana'. This review should be ideally held on marae and facilitated by iwi/hapū to reinforce the cultural significance behind the goal (Schiele, 2013a, unpublished).

## **5.2 INSIGHTS FROM THE COLLABORATION WITH TE KĀURU**

Part I of this chapter has looked at the experience of the wider iwi/hapū group since the conclusion of the action planning process in April 2011. Part II now follows with insights from the PhD specific collaboration with Te Kāuru between July 2012 and November 2013. After providing some background on Te Kāuru and how the opportunity for the collaboration arose, progress on the implementation of actions as they concern Te Kāuru is outlined. This includes successful application for funding from the Community Fund and consequent progress on the funded projects.

### **5.2.1 Context – The Formation and Role of Te Kāuru**

Te Kāuru, the Eastern Manawatū River Catchment Hapū Collective, represents the interests of the 11 hapū in the Rangitāne o Tāmaki-Nui-ā-Rua rohe<sup>83</sup> on the eastern side of the Manawatū Catchment. Te Kāuru, translated as the 'source', was founded in April 2010 in response to the publicity describing the Manawatū as one of the worst rivers in the western world (see Chapter 4). The Weber area near Dannevirke (where Te Kāuru is based) was at the time the most polluted part of the river, due to high phosphate concentrations caused by the Dannevirke STP. The inaugural Te Kāuru meeting, on 10 April 2010 was attended by 22 hapū representatives and other interested parties who agreed to:

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<sup>82</sup> Note: this report was compiled and shared at the MRLF Meeting in March 2014. An analysis of the report is outside the scope of this dissertation.

<sup>83</sup> Rangitāne in the North Island comprise four groupings: Rangitāne o Manawatū are based on the western side of the Manawatū Catchment; Rangitāne o Tāmaki-Nui-ā-Rua rohe spans the area from the source of the Manawatū to the gorge including the Upper Manawatū, Tiraumea, Mangatainoka and Upper Gorge sub-catchments, which together represent more than 50% of the total Manawatū River Catchment; Rangitāne o Wairarapa and Rangitāne o te Whanganui-ā-Tara are outside the catchment and not concerned with the MRLF. Some of the Te Kāuru hapū also have affiliations with other iwi, in particular Kahungunu.

- form the Te Kāuru hapū collective
- develop an iwi/hapū management plan
- develop tupuna tikanga (processes based on the traditions of the ancestors)
- become co-governors and co-managers of the awa in order to fulfil their kaitiaki responsibilities

The following whakataukī was chosen to represent the vision of the group: “Ki te ora te kāuru, ka ora te rere, ka ora te pūwaha” translated as “Should the river source be healthy and well, then so should (shall) be its flow (inclusive of its tributaries) even to its exit to the sea” (Te Kāuru, 2010, unpublished).

Organisationally, Te Kāuru comes under the Cultural and Political Services arm of Rangitāne o Tāmaki-Nui-ā-Rua Inc. for the purposes of the RMA. However, Te Kāuru very clearly sees itself operating on a hapū level, representing on-the-ground interests. Te Kāuru became a signatory to the River Leaders’ Accord in 2010 and sent a representative to the MRLF/IFS action planning workshops. However, as mentioned earlier, Te Kāuru did not receive funding for an IFS iwi sub-project as they were not in existence at the time of the IFS funding application.<sup>84</sup> Most Te Kāuru work is done on a voluntary, unpaid basis, which has an impact on the scope of what can be done.

#### **5.2.1.1 The Evolution of the PhD Collaboration with Te Kāuru**

The relationship with Te Kāuru evolved as a result of the action planning workshops and the 2011 Kaupapa Day. During the Kaupapa Day, initial results from the research on the voice of Māori and the suitability of Mediated Modelling as a process to make the voice heard were shared. All participants engaged in the dialogue and contributed their concepts of voice. This included a contribution from Te Kāuru who talked about the ‘Voice of the River’.

Following the Kaupapa Day, Jenny Mauger, the Te Kāuru workshop representative, started to open opportunities to observe the voice of Māori in other contexts. These included the opportunity to participate in two related training activities in the Hawke’s Bay in October 2011. CHI and State of the Takiwā (SOT – note: takiwā is the South Island expression for an area within a rohe) training was delivered by a trainer from Ngāi Tahu. This training unit was a practical, hands-on learning of different techniques of water quality monitoring. The second training on RiVAS (River Values Assessment System) was delivered in a conference room setting by Gail Tipa.

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<sup>84</sup> IFS did, however, pay a travel allowance to the Te Kāuru representative and tried to create other project opportunities.

CHI and SOT are stream health monitoring tools developed by Māori for Māori to allow an assessment of stream health in specific locations and to provide the capability to 'voice' concerns around river health in a culturally meaningful way (Harmsworth & Tipa, 2006; Townsend et al., 2004). RiVAS, on the other hand, is an all-of-catchment tool allowing Māori to assess a whole catchment and to prioritise action in a catchment (Tipa, 2010). It became clear during training that RiVAS is to a certain extent counter-intuitive to Māori culture as it asks iwi and hapū to make choices around river management, when in reality the kaitiaki responsibility should extend equally to all water bodies in their rohe.

Other opportunities included participation in a 'Love our River Day' on the Ngaruroro River in January 2012, which in turn led to an invitation to join Operation Pātiki (Operation Flounder) members in their flounder monitoring activity on the Clive (Ngaruroro tawhito) River in May 2012.

Each opportunity contributed to a new level of understanding and the realisation that the challenges on the ground are quite different from the challenges in a workshop setting: most work on the ground is done on voluntary basis and has to fit around the need to make a living; it became clearer that over time much knowledge has been lost concerning healthy landscapes and bodies of water. Peoples' food sources have shifted away from the rivers and streams to supermarkets and fast food outlets.

As the landscape changed due to new landowners and their practices, traditional knowledge has in some instances been lost or in others has become obsolete or fragmented. Knowledge based on traditional values now needs to be re-created in this changed landscape. In addition, management of land and water rests with regional and district councils, who manage the resource under a western paradigm. Ways to influence the thinking and practices to integrate cultural considerations are in various stages of being established. This happens mainly through collaborations such as the IFS and MRLF, through joint projects on the ground or through the lodgement of iwi/hapū management plans with councils.

When the opportunity to work alongside the Te Kāuru Management Team was offered in June 2012, it opened the path to an even deeper level of understanding through more direct involvement in the implementation of MRLF actions. The collaboration was set up to be mutually beneficial – an exchange of knowledge and mutual capacity building. Initially the collaboration was not formally linked to the PhD, but occurred as a result of a personal relationship-building process. However, as the RMPF process

evolved, the opportunity to turn the informal collaboration into a part of the case study emerged in November 2012. On 25 January 2013, Te Kāuru signed off a formal research proposal, to integrate the river management planning pilot in the PhD research, building on the insights from the RMPF development.

The insights from the collaboration are described in two segments. The first is mainly concerned with the implementation of the MRLF actions. One of these actions, the development of a Management Plan for the Upper Gorge, led to Te Kāuru's early engagement in the RMPF process. Insights from the RMPF process and initial work on the first hapū pilot plan are described in Chapter 6.

### 5.2.2 Implementation of MRLF Actions

Te Kāuru met only twice between the signing of the MRLF Action Plan on 22 June, 2011 and the hui on 13 July 2012, which marked the beginning of the collaboration between Te Kāuru and me. The first hui-ā-iwi with HRC following the signing ceremony was coincidentally also happening in July 2012 as described in Part I of this chapter. The main activity related to implementing the action plan between June 2011 and July 2012 had been the development of a Te Kāuru database containing hapū member contact details, geographical location of hapū and cultural information such as mahinga kai sites.

During the first joint hui with Te Kāuru on 13 July the list captured in Table 5.3 with MRLF action items relevant to Te Kāuru was reviewed:

**Table 5.3: Summary of Actions from the MRLF Action Plan with Relevance to Te Kāuru (Status April 2011)**

<b>Legend:</b> <b>Bold-</b> led by Te Kāuru      √ applies in catchment N/A Not applicable      p = page number in MRLF Action Plan					
Actions	Led By	Upper Manawatū	Tīraumea	Mangatainoka	Upper Gorge
<b>Explore opportunities for improved collaboration, p. 25</b>	HRC	fencing + planting at source and at Tāmaki	√	Opportunity to engage in farm nutrient plans?	Fencing and planting at Mangahou
<b>Pilot Catchment Care Group in Tararuas, pp. 25 + 32</b>	Fed. Farmers	N/A	N/A	√	N/A
Discuss development of an Upper Gorge Management plan, p. 25	<b>Te Kāuru/HRC</b>	N/A	N/A	N/A	√
<b>Explore opportunities for better iwi/hapū representation in river management, p. 26</b>	HRC	√	√	√	√

Actions	Led By	Upper Manawatū	Tiraumea	Mangatainoka	Upper Gorge
<b>Discuss iwi/hapū resourcing, p. 26</b>	Iwi/hapū	√	√	√	√
<b>Discuss and produce Cultural area management plans 2012–2014, p. 26</b> <b>Rāhui, cultural events 2015 and others</b>	Iwi/hapū	√	√	√	√
<b>Discuss how to involve iwi/hapū in ongoing consent mgmt., p. 26</b>	Iwi/hapū	√	√	√	√
<b>Discuss how to implement protection for wāhi tapu sites by 2013, p. 26</b>	Iwi/hapū	√	√	√	√
<b>Foster TLA collaboration, p. 27</b>	Iwi/hapū	√	√	√	√
<b>Provide hapū communication directory 2012, p. 27</b>	<b>Te Kāuru</b>	√	√	√	√
<b>Provide advice on whole farm plans</b>	HRC	√	√	N/A → to be included	N/A → to be included
<b>Input into consent applications/ improvements, p. 28</b>	HRC by 2012,	N/A – Dannevirke	N/A	Pāhiatua, Eketahuna Fonterra, DB Breweries	Woodville
<b>Apply code of practice to flood protection work p. 35</b>	HRC	√	√	√	√
<b>Consider cultural values in river management, p. 35</b>	HRC	√	√	√	√
<b>Establish Freshwater Fisheries group 2011, p. 35</b>	Iwi/hapū				
<b>Identify mahinga kai sites for restoration by 2014, p. 35</b>	Iwi/hapū	√	√	√	√
<b>Identify fish barriers for remediation by 2014, p. 36</b>	HRC				
<b>Public education on native fish, p. 37</b>	DOC	√	√	√	√
<b>Distribute Accord/action plan info as required, p. 37</b>	<b>Te Kāuru</b>	√	√	√	√
<b>Develop CHI (iwi/hapū), p. 38</b>	Iwi/hapū	√	√	√	√
<b>Establish CHI sites (iwi/hapū) 2013, p. 38</b>	Iwi/hapū	√	√	√	√
<b>Investigate causes of poor water quality in Mangatera, p. 38</b>	HRC	√	N/A	N/A	N/A
<b>Develop suitable economic measures, p. 39</b>	Fed Farmers	√	√	√	√

The review focussed on the three actions directly led by Te Kāuru. The first Te Kāuru led action listed in the Action Plan is the development of an Upper Gorge Management Plan. The merits and likely contents of an iwi management plan were discussed in some detail. Reference was made to the iwi management planning discussion at the inaugural Te Kāuru hui in April 2010. Based on a review of other iwi management plans (Motakotako Marae Environment Committee, 2008; Te Mana o Ngāti Rangitahi Trust, 2011; Te Rūnanga o Kaikōura, 2007), it was proposed to consider the inclusion of the following items:

- A high-level map, showing the rohe of the various hapū
- Vision and values expressed in narratives and stories
- Iwi policy statements on freshwater and wastewater management
- A high-level assessment of the four sub-catchments and the 'hot spots'
- 'Inventories' for projects and initiatives already underway, resource consents and their expiry dates, iwi/hapū resources, and potential partners for collaboration

It was decided to explore the availability of funding from HRC to develop the Upper Gorge Management plan contained in the MRLF Action Plan. Five days later at the hui-ā-iwi, Te Kāuru volunteered to start the iwi/hapū river management planning framework process, funded by HRC.

The second action item in the Action Plan led by Te Kāuru was about the provision of a hapū communication directory. It was agreed to develop and distribute a database of Te Kāuru members showing contact details and skill sets. The development of this database is ongoing as new members join and old members retire.

The third Te Kāuru action item was about the distribution of Accord/Action Plan information as required. It was agreed to create a newsletter to update Te Kāuru members on a regular basis. The first issue of this newsletter was finally mailed out in September 2013. In order to make this happen, printing cost and postage were donated by different Te Kāuru members as there is no operating budget for Te Kāuru.

### **5.2.3 Te Kāuru – Monthly Hui and Business as Usual**

Apart from the planning process, which is described in detail in Chapter 6, Te Kāuru proceeded with several other actions between July 2012 and November 2013. Regular meetings with HRC were instituted to discuss progress on the planning framework; the possibility to support Te Kāuru in the development of GIS (Geographical Information



Systems) mapping skills as well as various project opportunities on the ground. A planting day at the source of the river eventuated in July 2013. It involved Rākautātahi Marae and the wider community (Manawatū River Leaders' Forum, 2013b) and attracted people from as far as Wellington.

In addition, Te Kāuru successfully applied for a grant from the Community Fund (part of the Fresh Start for Fresh Water funding described earlier in this chapter) to embark on the first phase of the Parahaki Island project. Parahaki Island is located on the western side of the Manawatū Gorge and used to be an important mahinga kai site. Community gardens used to be maintained on the island and planted and harvested during the traditional annual food gathering cycle.

The Parahaki Island project was successfully conducted by members of Te Kāuru and Te Kura Kaupapa Māori o Tamaki nui a Rua (the local school) between February and March 2013. Two further and more ambitious applications to the Community Fund were successful in July 2013. The first application concerns the second phase of the Parahaki Island restoration. The second is about weed control and beautifications around a popular swimming hole at Kaitoki on the outskirts of Dannevirke. Both projects are aimed at involving and benefitting the wider community.

Helping Te Kāuru with their first application made me realise that the questions asked in the funding application required some interpretation. Furthermore, confusion existed about funding criteria and available funds. This is an indication that the challenge of being able to listen and understand the intent of what is being said also exists among iwi/hapū, in their interaction with western institutions and processes. However, once the rules of the application process were understood, the Te Kāuru team had no problems in successfully driving the process during the second funding round.

#### **5.2.4 Reflections on the Collaboration with Te Kāuru**

During the time working with Te Kāuru, it has become clearer just how much Te Kāuru relies on the commitment and enthusiasm of a small group of six to eight people.<sup>85</sup> Almost all work for the hapū collective is done on a voluntary basis. The work of the group is made more challenging as it has to span protocols and customs of two very different approaches – western and Māori – in interacting with and managing the environment. The group is slowly gathering the traditional knowledge relating to the

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<sup>85</sup> Based on interactions with various iwi/hapū groups in the catchment and wider, it appears that while there is funding for health and education services, there is very little funding for fulltime or even parttime environmental/kaiaakitanga roles.



four sub-catchments. At the same time, it is building relationships with councils, and knowledge of council processes and programmes that could benefit the work of Te Kāuru and kaitiaki in the area. The learning efforts are not one-sided. HRC have embarked on cultural awareness training to make interactions with iwi/hapū easier and more relevant for their staff.<sup>86</sup>

Skills in identifying available funds and writing funding applications are being developed, together with project management skills. The group is very aware of the value of good communication with the wider hapū collective. However, time and resource constraints often make communication efforts difficult. As outlined above, resource constraints can be as basic as finding the cash for printing and posting 30–40 newsletters to iwi/hapū members who do not have access to e-mail. It is hoped that improved communication and ongoing success with projects will attract more people over time to support the work of the group.

In summary, it can be concluded that while a couple of the Te Kāuru specific action items from the Action Plan have been successfully concluded, most tasks are still work in progress. As outlined in the earlier action section, most of these items are linked to the development of the collective RMPF, which is the subject of the next chapter.

### **5.3 SUMMARY**

This chapter covered the period between July 2011 and November 2013. During this time, IFS and MRLF advanced their activities in parallel. Both processes continued to provide opportunities for iwi/hapū to build on the relationships formed during the action planning process.

The windfall funding opportunity provided by the Government's 'Fresh Start for Fresh Water' fund provided little direct funding for iwi/hapū due to its focus on tangible outcomes in water quality. Iwi/hapū actions were still predominantly in the discussion and planning stages of the adaptive management cycle and thus did not qualify for funding. Most of the funding went towards point source discharge improvement projects run by TLAs. The irony of the funding going to the group with the least visible commitment to the MRLF action planning process was not lost on iwi/hapū. HRC tried to open opportunities for iwi/hapū to participate in a wider range of projects by involving the various groups in fencing, riparian planting, and habitat restoration projects. MRLF agreed to dedicate 40% (\$90,000) of the Community Fund to iwi/hapū projects. For

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<sup>86</sup> More recently a HRC management retreat was hosted on marae by Muaūpoko as an opportunity to enhance relationships and provide more insights into traditional customs.

Muaūpoko opportunities opened up outside the Manawatū River Catchment. Their improved relationship with HDC culminated in the signing of an Accord to clean up Lake Horowhenua in July 2013.

As shown in Chapter 4 most iwi/hapū projects related to the discussion and planning stages in the adaptive management cycle. Due to very limited resources in the predominantly volunteer base of iwi/hapū and the difficulty of working across iwi/hapū in the absence of Treaty Settlements in the region, progress was slow. This became very obvious during the collaboration with Te Kāuru, as they rely almost 100% on volunteer engagement. To strengthen iwi/hapū involvement in activities in the decision making process for the river, it was agreed to develop a RMPF from the source to the sea. HRC consented to provide funding for the process.

It has also been described how relationships from the process have started to open up other small opportunities for iwi/hapū outside the Action Plan. Overall, this part of the case study shows the need for good collaboration in integrated freshwater management on the one hand, and the weak position of iwi/hapū to become more actively engaged and funded on the other. This begs the question how iwi/hapū can move from a predominant position of discussion and planning, to a position of more active engagement in actions that directly impact on the health of the river.

The next chapter will describe Phase III of the Case Study – the development of the RMPF from a pan-iwi/hapū as well as a Te Kāuru perspective.

#### Box 5.2 Insights from the Process of 'verstehen'

- There are challenges in progressing actions individually and collectively for iwi/hapū (but also other stakeholders)
- Cost of lack of funding
- High reliance on volunteers in absence of funding for iwi/hapū leads to long lapse times between activities
- Whanaungatanga in action – MRLF relationships help to open up new opportunities for iwi/hapū

#### Verstehen – in Progress

- There is an issue with MfE funding and how its allocation has been received by iwi/hapū. In the spirit of a Treaty based partnership, is it about:
  - Equal funding for western and iwi/hapū organisations?
  - Equal decision making in how the recipients spend the funding?

## **CHAPTER 6. CASE STUDY PHASE III – RIVER MANAGEMENT PLANNING FRAMEWORK**

Chapter 6 is dedicated to the third phase of the Case Study, the river management planning activities. It continues from the agreement to address iwi/hapū actions from the MRLF Action Plan (as summarised in Table 5.1) to the actual process of developing such a framework. The first part of the chapter provides a high level overview of how the RMPF process evolved between July 2012 and November 2013. This is followed by a more detailed description of the actual events that starts at the pan-iwi/hapū level, addressing the objectives and envisioned process for the development of a pan-iwi/hapū RMPF. The chapter then describes the Te Kāuru wānanga process to arrive at a draft RMPF for the eastern side of the Manawatū Catchment. Key themes and insights emerging from the wānanga process are discussed. These include the need to engage hapū members on the ground in planning processes to create ownership and dialogue as well as the need to build capacity to fulfil hapū ambitions around kaitiakitanga over time.

The second part of the chapter describes the envisioned approach to develop a pilot RMP with Ngāti Parakiore, a Te Kāuru hapū. It also describes insights from the dialogue with Ngāti Parakiore and the reasons why this pilot ultimately could not be developed in the available timeframe. The narrative then loops back to events around the pan-iwi/hapū RMPF leading up to the MRLF meeting on 14 November 2013. The chapter concludes with a reflection on events, and how they could be perceived differently when seen from a western rather than from a Māori perspective.

### **6.1 OVERVIEW – PHD AND RMPF – CONTEXT AND PROCESS**

Davidson and Tolich describe the process of research in social sciences as ‘messy’. While theoretically the research should unfold as planned, in reality most research projects require numerous adaptations along the way (Davidson & Tolich, 2003). However, the deviations from the planned approach offer opportunities to deeper ‘Verstehen’ in other ways.

As outlined in the previous two chapters, most of the iwi/hapū-specific actions in the MRLF Action Plan related to the discussion/planning phases of the adaptive management cycle. It was suggested and agreed in the first hui-ā-iwi in July 2012 that the development of a RMPF followed by a RMP from the source to the sea, would be a good way to progress the various actions. The original agreement was that a RMPF could be developed within a timeframe of 6 months. Te Kāuru volunteered to start the

process at the source of the river, providing an opportunity for some PhD specific action research.

Following the September 2012 Te Kāuru wānanga, which is described in more detail later in this chapter, there were two possible avenues to progress the research on the RMPF process. One was to work with all iwi/hapū on the development of a pan-iwi/hapū RMPF from the source to the sea. The other was to focus on the development of a pilot RMP based on the Te Kāuru draft framework. One of the Te Kāuru hapū had volunteered to develop a pilot RMP and test the framework.

Ultimately, it was decided that it was more pragmatic to go with the hapū pilot plan option. Working with one hapū only, would deepen the 'Verstehen' by testing the practicalities of the framework. It would provide some insights into efforts and skills required to do a plan. The approach was seen to minimise the complexities of engagement and provide an increased chance to bring the research to a mutually beneficial conclusion.<sup>87</sup>

As a consequence, terms of reference and a high level plan were developed with Ngāti Parakiore in February 2013. After the first planned hui with Ngāti Parakiore whānau in March 2013, the process was temporarily put on hold. Te Kāuru had decided that it would be wise to follow tikanga and obtain sign-off for the RMPF developed in September 2012 from all hapū involved before beginning the actual planning process with one of the hapū. In addition, HRC, the designated funder of the process, expressed a preference for not proceeding with an individual hapū plan before completing the whole framework. The pilot planning process therefore went on hold in May 2013. Sign off from the last marae was finally obtained in October 2013.

During the third hui-ā-iwi, on 17 September, 2013, a commitment to progress the pan-iwi/hapū RMPF was reignited. It was agreed to take the next step prior to the MRLF meeting on 14 November 2013. The research period was subsequently extended to November 2013 in the expectation that a pan-iwi/hapū RMPF, or at least a joint value statement, would be developed over the 2-month period.<sup>88</sup> Table 6.1 provides a timeline for the three phases of river planning activities.

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<sup>87</sup> In contrast, working on an overarching framework with all iwi/hapū along the river was seen to require much broader engagement, given that there are five recognised iwi and more than 40 hapū in the catchment. It was recognised that the completion of an overall RMPF would be a valuable contribution by helping with the process of 'verstehen' in regards through the identification of shared values and local variations of approaches. However, chances to complete a pan-iwi RMPF were deemed to be slim.

<sup>88</sup> A contract variation to the TTP Fellowship allowed for an extended period of five months for documenting the outcomes from the research.

**Table 6.1: River Management Planning Activities and Responding Timelines**

	July – Sept. 2012	Nov. 2012 – May 2013	Sept. – Nov. 2013
<b>Pan iwi/hapū framework</b>	Pan-iwi RMPF Te Kāuru wānanaga and hapū sign off  Final sign-off October 2013		
<b>Pilot Plan</b>	Ngāti Parakiore collaboration		
<b>Pan- iwi/hapū framework</b>	5 May First Ngāti Raukawa planning event <span style="float: right;">Pan-iwi/hapū RMPF efforts continued</span>		

The documentation of events starts with the pan-iwi/hapū RMPF process. This is followed by a description of Te Kāuru progress towards the pan-iwi/hapū framework including the process, outcomes, and the sign off phase. The red arrow indicates the lapsed time before Te Kāuru could obtain final sign off from all marae in October 2013. The next section of the documentation focuses on the planning process for the pilot river management plan with Ngāti Parakiore. The third part loops back to the pan-iwi/hapū effort and concentrates on the period between September and November 2013.

#### Box 6.1 On a Personal Note: Time – Cost – Quality Tension in Projects

My personal observations from many projects run in a business context confirm the tension between time, cost, and quality of output in most projects. In a western/business context there is a tendency to put timelines and budgets first. The IFS/MRLF workshop process was strictly time bound. Another example related to the MRLF process can be seen in the initial funding condition to spend fresh start for freshwater management funding for planting projects by the end of the MfE financial year in June. However, the best planting season is July–August. A short-term focus can lead to increased overall cost due to rework.

In the context of my personal experiences, I can see the wisdom in getting upfront engagement with and signoff from iwi/hapū. Upfront alignment allows staying more focused on the actual implementation. However, the long drawn out processes and lapsed time between actions due to strained volunteer resources can lead to break downs in communication and the loss of the original purpose of an effort.

## **6.2 PAN-IWI/HAPŪ PROCESS: JULY 2012 – MAY 2013**

As outlined in Chapter 5, the agreement to develop a collective RMPF was reached during the first hui-ā-iwi on 18 July 2012. It followed a review of progress on actions (see Table 5.1) and the realisation that most outstanding actions would ideally form part of an overall plan from the source/mountains to the sea involving hapū and their marae along the river. This framework was to provide the structure to develop a pan iwi/hapū RMP for the Manawatū as a second step. HRC committed funding for the process (Manawatū River Leaders' Forum, July 2012, unpublished). This funding was separate from the \$ 5.2m received from MfE (as described in Chapter 5). HRC also indicated that more funds would be made available for the actual planning process. The planning funds were aimed at covering the cost for hui and travel expenses. A time plan to come up with the framework by December 2012 was discussed, and Te Kāuru volunteered to start the process on the eastern side of the Manawatū Gorge. It was also agreed to hold hui-ā-iwi at intervals of 2–3 months to continue improving the working relationships between iwi/hapū and HRC (Manawatū River Leaders' Forum, July 2012, unpublished).

A second hui-ā-iwi was held in November 2012, preceding the MRLF meeting on 7 December 2012. At this hui, Te Kāuru presented their draft framework for discussion. The involvement of hapū in the process was acknowledged as a positive move by other participants. One participant commented "Te Kāuru had set a benchmark, for the others to follow" (Schiele, 2012b, unpublished). Due to time and resource constraints, other iwi/hapū groups had at this stage not been in a position to progress the framework. One group stated they had already gone through such a process 2 years earlier and did not need to repeat the exercise. Overall, the groups were in agreement that it was important to get the framework right, rather than meet a specific timeframe desired by HRC and MRLF. The hui closed with Ngāti Raukawa committing to hold their framework planning hui in February 2013 and Muaūpoko indicating that they might be able to follow in March (Schiele 2012b, unpublished).

Efforts to progress the framework in February stalled, as the designated volunteer Ngāti Raukawa coordinator was not available to drive the effort. An initial hīkoi took place on 5 May at Tokomaru to start off the RMPF process. This resulted in a planting project which took place in November 2013. Muaūpoko considered possible approaches to a RMPF in March 2013, but did not proceed with the development. Fishery and Treaty Settlement priorities as well as the development of a Lake

Horowhenua Accord were the underlying causes for not proceeding (Muaūpoko, pers. comm. May 2013).

There was no hui-ā-iwi before the MRLF review in June 2013. The status update at the MRLF meeting on 19 June, 2013 indicated that the framework was still work in progress, with no definite delivery date committed. Over the 12-month period no single pan-iwi/hapū leader had emerged to facilitate a RMPF from the source/mountains to the sea. This reflects the autonomy of individual iwi/hapū in the decision-making process. In recognition of the need to align the outputs from the various processes, there was an offer from Rangiotu Marae to bring the outputs from the four groups together at a combined wānanga at Rangiotu and to agree on an overall RMPF.

IFS had recognised the need to build stronger relationships between iwi and hapū in the region and had in its initial planning made an allowance for monthly meetings during the first year of the project. Given the changes in the IFS approach, this opportunity of relationship building was much reduced. Arguably, it would also not necessarily have had the desired effect to capture the whole iwi/hapū community, as the project did not involve all hapū. The next section looks at the Te Kāuru events.

### **6.3 THE DEVELOPMENT OF THE TE KĀURU RMPF**

As the context for the development of the Te Kāuru (RMPF) has already been described, this section concentrates on the actual wānanga-based planning process, the contents of the framework, and insights from the exercise.

#### **6.3.1 The Planning Process – ‘Wānanga – Te Reo o Te Awa’**

The essence of the draft RMPF was developed in the course of 28 hours involving four marae from the source of the river near Norsewood to Pahiatua. An invitation to participate in the ‘Wānanga – Te Reo o te Awa’ (The Voice of the River) had been extended to all iwi/hapū groups represented in MRLF. Three representatives from the western side of the catchment joined in the process which involved more than 80 people along the way. The process began in the late afternoon of Friday, 7 September, 2012 with a powhiri (official welcome) at Rākauātāhi Marae (Takapau). It continued the next morning at Mākirikiri Marae (after a brief stop at the historic whare (building) near Kaitoki Marae) in Dannevirke. The next stop was Te Ahu a Tūranga Marae in Woodville. The journey ended at Te Kōhanga Whakawhāiti Marae in Pahiatua on Saturday evening.



At each marae, a brief history of Te Kāuru and its purpose set the scene. This was followed by an introduction to the purpose of iwi/hapū RMPs, namely to give iwi and hapū voice in the regulatory council planning processes, not just as mere stakeholders, but as partners in the planning process. Te Kāuru's commitment to involve hapū in the process, and build on local knowledge and passion for the river was clearly expressed.

Participants were reminded that in the old days up to 90% of the food sources were water based – coming from rivers, lakes and the sea. They were also reminded that the human body contains a large portion of water, connecting people and their well-being directly with the water bodies around them.

Outcomes from the MRLF action planning process were shared. Copies of cultural values presented by the iwi/hapū collective to MRLF (see Appendix 2) as well as Te Kāuru's cultural values, catchment maps and the Action Plan were handed out. The presentation of a video, 'Video-Te-Awa', produced by Hone Morris on 1 September 2012 while flying by helicopter over the river from the source to Parahaki Island, opened the dialogue with participants. At each marae participants were drawn to the visual representation of the river. The recognition of places of cultural or geographic significance prompted the sharing of historical narrative and current concerns alike. Key points to be reflected in the planning framework were captured on a whiteboard and later transferred into PowerPoint slides. Participants at each marae assessed what had been contributed up to this point and added their points in a constructive and inclusive way. It was agreed to present key points in te reo (the Māori language) to preserve the significance of the points, rather than lose it in translation. At each marae the session concluded with an unanimous resolution to support the work of Te Kāuru and the emerging planning framework (Schiele, 2012c, unpublished).

The output from the wānanga was reviewed in a follow-up planning session on 2 November 2012. The review included the possibility to take the ultimate plan beyond the 30 years discussed during the wānanga and develop a 100-year or 3–4 generation plan. This discussion was sparked by the publication of an article "Hundred-year plan a valuable lesson" (Slade, 2012). The article referred to the development of a 100 year plan for the 7300 ha Owahanga Station, 100 km south-east of Dannevirke. The station, owned by Aohanga Inc., has been in continuous Māori ownership since Māori first came to the land. The plan addresses the need to change management practices on the station to achieve sustainability in the long run. The 100-year plan allows the capturing of a vision for generations to come (Slade, 2012). The Station consequently won the Sustainable 60 Award 2012. One of the key people involved with the planning



is also connected with Te Kāuru. It was agreed to gain a better understanding of the 100-year planning framework and incorporate aspects, if appropriate, at a later stage.

The initial draft RMPF was developed in the form of a PowerPoint presentation. Te Kāuru entrusted me with the task of pulling the material into a draft presentation. It is fair to say that at this stage, the relevance of the approach taken by the wānanga participants had not yet sunk in. I was still focused on the best way to satisfy HRC and LTA planning needs. The presentation contained the original points made in te reo and their translation into English. However, the bulk of the slides contained guidelines for the actual planning process (refer to Appendix 4 for a complete copy of the presentation).

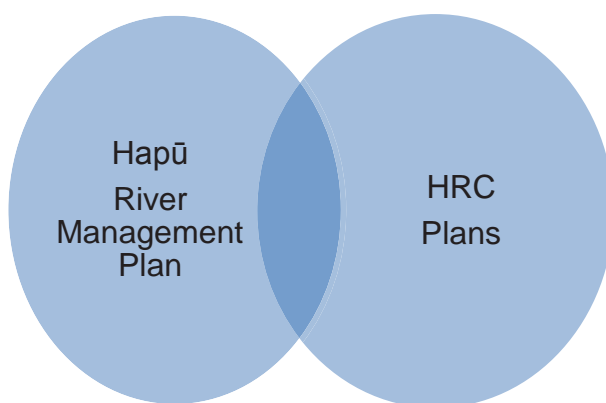
The draft was first presented to the IFS iwi/hapū participants at the 2012 Kaupapa Day and to the wider iwi/hapū group at the hui-ā-iwi on 8 November 2012. Feedback from both sessions was incorporated into the draft planning framework before it was presented back to Rākautātahi and Mākirikiri Marae for ratification in December 2012. Inputs from these two sign-off hui were then incorporated for the sessions at Te Ahu a Tūranga and Te Kōhanga Whakawhāiti Marae in 2013.

In the end, the ratification hui for Woodville and Pahiatua were rescheduled seven times for Woodville and eight times for Pahiatua between December 2012 and September/October 2013. Rescheduling was mainly necessitated by the unavailability of attendees due to illness or other pressing commitments. The process clearly demonstrated the challenges in following due tikanga when consulting with multiple hapū. The main addition to the framework over this time was the inclusion of a slide concerning the measurement of the mauri of the river (Slide 12 in Appendix 4).

### **6.3.2 The Contents of the Framework**

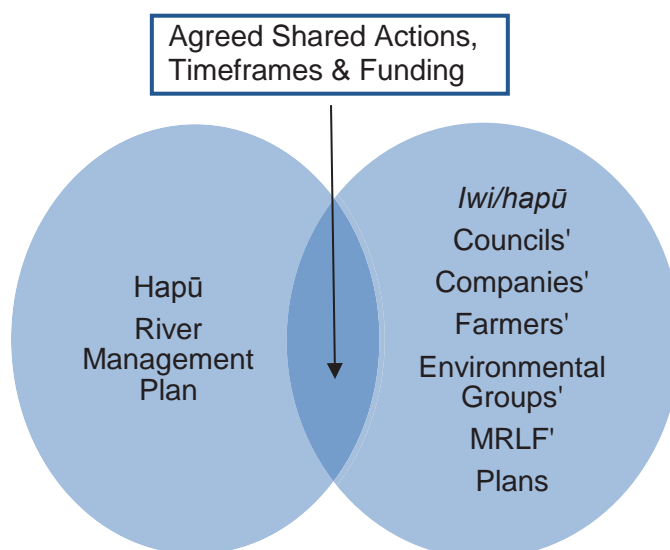
“Are we being listened to or is it being interpreted? I talk and you go away and write down what you think I said”. This question asked by one of the participants during the session at Mākirikiri Marae had also been in the background of the dialogue during the preparation phase for the RMPF wānanga. In the dialogue with the Te Kāuru Management Team it had become clear that a planning format had to be found that reflected a grassroots movement driven by hapū. It had to allow hapū members to ‘own the plan’ and relate to it. As Jenny Mauger put it “...it remains essential that when the Hapū Management Plan writers have completed their document, they should see a mirror image of themselves. If it’s matauranga Māori, then ensure this is a strong feature” (Mauger, e-mail, 2012).

On the other hand, the framework also needed to be accessible to regional and local authorities who would receive the plan and would have to integrate it into their long-term and short-term planning frameworks as provided under the RMA and the LGA. Figure 6.1 was used to show the link between hapū and councils – two stand-alone planning frameworks, with a shared interface connecting the two. Based on Mason Durie’s Bicultural Continuum (Durie, 1995), the chosen approach reflects parallel Māori and Pākehā institutions, working in partnership towards a better outcome, namely wai-ora (healthy, living waters).



**Figure 6.1: Independence and Connection in Planning Process**

During the wānanga it was acknowledged that HRC are not the only organisation to be considered in the planning process. Depending on the context, hapū are likely to interact with a wider group of stakeholders, whose plans might concern hapū and vice versa. The question raised was “How can we be understood when we don’t have representation?” Eventually it was agreed that it would be beneficial to share plans more widely and invite other stakeholders to do likewise. It was further agreed that actual projects on the ground might initially be the most meaningful connectors between different interest groups. As a result, Figure 6.1 was enhanced as depicted in Figure 6.2.



**Figure 6.2: Independence and Connection between Planning Processes – Enhanced Version as Agreed During the Wānanga**

Iwi/hapū are included in the right-hand list of planning entities to highlight the fact there is not ‘One Voice of Māori’ along the river but a multitude of hapū and iwi (depending on the preferred form of organisation and representation) exercising their right to kaitiakitanga in their respective rohe. In cases of overlapping or adjoining land interests, it was agreed that iwi/hapū should ideally co-ordinate their plans and acknowledge each other’s interests through the process.<sup>89</sup>

The dialogue on the contents of the plan very quickly showed that hapū members were taking a distinctively different approach to that taken during the MRLF action planning process. While the MRLF action planning had identified problems such as sedimentation, nutrient levels, and habitat destruction, the wānanga participants approached the RMPF through their relationships with the river. Relating the approach back to the mauri measurement triangle depicted in Figure 4.7, it can be said that wānanga participants took a ‘top down’ approach. The assessment of the river’s health started with the overall state of the mauri.

The whanaungatanga (relationship, kinship) between the river and the people was captured by the emphasis on wai-ora and its capacity to heal and provide spiritual connections through initiations and baptising rituals. The river’s voice, expressed through historical narrative and visual aids like the video, will guide the people’s voice. People will come together to share their knowledge, decide on the trees to plant and

<sup>89</sup> The importance of such an approach was carried home during a hui at the western site in 2013, where claims were made that a rivalling iwi had signed off on a resource consent impacting on the local marae.

how to collaborate on projects. The river as a food source was acknowledged before the discussion moved on to the need to fund the restorative work. In the course of the wānanga the theme for the wānanga 'Te Reo o te Awa' was changed into 'Te Karanga a te Awa' (The Call of the River) to better reflect, that the river had called out to its people and people are following the call.

Table 6.2 summarises the action categories as they were developed during the wānanga, both in te reo and in the English translation.

**Table 6.2: Te Karanga a te Awa – Kaitiakitanga – Output from the Wānanga**

1	<b>Whanaungatanga ki te awa –</b> ā whanau, ā hapori Rangatahi – ki te awa <ul style="list-style-type: none"> <li>- Mātauranga</li> <li>- Pūtaiao</li> <li>- Waiata</li> </ul>	<b>Relationship to the river</b> Family, community Youth – to the river <ul style="list-style-type: none"> <li>- For education</li> <li>- To teach and learn science</li> <li>- Songs with historical reference</li> </ul>
2	<b>Waiora</b> <ul style="list-style-type: none"> <li>- Whakaora</li> <li>- Iriri</li> <li>- Rongoa</li> </ul>	<b>Living Water</b> <ul style="list-style-type: none"> <li>- To heal</li> <li>- To initiate, baptise</li> <li>- For medicinal purposes</li> </ul>
3	<b>Te reo o te Awa</b> <ul style="list-style-type: none"> <li>- Rauemi</li> <li>- Tātai kōrero</li> <li>- Whitiata</li> <li>- Waiata</li> <li>- Kōhanga/Kura Kaupapa</li> <li>- Kura Auraki</li> </ul>	<b>The River's Voice</b> <ul style="list-style-type: none"> <li>- Educational resources</li> <li>- Historical narrative</li> <li>- Video</li> <li>- Songs</li> <li>- Kōhanga/Kura Kaupapa</li> <li>- Main Stream Schools</li> </ul>
4	<b>Te reo o te tangata</b> <ul style="list-style-type: none"> <li>- Kōrero tahi</li> <li>- Momo rākau</li> <li>- Mahi ngātahi</li> <li>- Rongoa</li> <li>- Mātauranga</li> <li>- Whakaako</li> <li>- Whāngai atu</li> <li>- Aroturuki</li> <li>- Matakite</li> </ul>	<b>People's Voice</b> <ul style="list-style-type: none"> <li>- Discuss together</li> <li>- Tree species for planting</li> <li>- Collaboration on projects</li> <li>- Medicinal focus</li> <li>- Education</li> <li>- Teaching each other</li> <li>- Sharing knowledge</li> <li>- Monitoring</li> <li>- Use of visionary people</li> </ul>
5	<b>Māra kai</b> <b>Mahinga kai</b> ⇒ Pātaka kai	<b>Food Source</b> <b>Gathering</b> ⇒ foodstore
6	<b>Pūtea</b> Taiepatia ngā urupa Karahipi  Whakatū wānanga Hikoi rangatahi <ul style="list-style-type: none"> <li>- tātai kōrero</li> <li>- mātauranga hou</li> <li>- mangaako/akomanga</li> </ul>	<b>Available Funding</b> To fence known burial grounds Formation of scholarships/internships/summer activities Establish in-depth studies -Youth treks <ul style="list-style-type: none"> <li>- to learn the historical narratives</li> <li>- to learn new knowledge, science, protecting the environment</li> <li>- utilise the streams as classrooms</li> </ul>

**Note 1:** Spelling and translations in the table were provided by Te Kāuru during the wānanga. Māori words in the table are not repeated in the glossary, unless they have been used elsewhere.

**Note 2:** \*Kohanga, Kura Kaupapa are Māori schools

The approach to the river management planning framework developed during the The approach to the river management planning framework developed during the wānanga confirms that to hapū represented by Te Kāuru, the river is more than just a series of problems to be fixed. The relationship with the river will guide the approach to restoring the river's health and wellbeing. As one participant put it, 'the awa needs to govern what people do' (Schiele, 2012c, unpublished). Points 1–3 in the table above should provide the basis for hapū to connect with the river. Point 4 can be seen at the interface with other stakeholders. This is where the voices of people come together to agree on the appropriate action.

At no stage in the process was there denial that the river is in a sad state. Different states of river health were acknowledged from wai-mate (lifeless water) to wai-ora, including wai-herehere (captive, imprisoned water) and wai-mārama (clear, transparent water). It was also recognised that once the river becomes a source of kai (food) again, the motivation to look after it will be much stronger than if people go there only for recreation. Last but not least, the need for a long-term vision of over 30 years (which coincided with the period chosen during the IFS action planning workshops) and for a more proactive and inclusive rather than reactive approach to planning were discussed (Schiele, 2012c, unpublished).

### **6.3.3 Insights from the Exercise**

There were several insights resulting from the exercise. First, 'the right people attended on the day', i.e. the right people came together for the wānanga. Everybody who was there made a contribution. Nobody dwelt on the numbers or affiliations of attendants. Those who attended were welcome and integral parts of the process. The second insight was how efficient and effective a wānanga process is. Even though the process appeared to be rather informal with people coming and going, the desired outcomes were achieved. The essence of the planning framework was developed in four relatively short but intense sessions. The power of the visuals provided by the video drew people to the same places along the river, prompting the same memories and narratives, providing a powerful connection with the river.

One major insight was just how little the printed handouts meant. One of the participants commented that the maps of the river didn't relate to the river as he experienced it on a day-to-day basis. The words in the MRLF Action Plan did not easily translate into action on the ground, i.e. place-based action for hapū members. The video, on the other hand, illustrated opportunities for action in specific places. Examples included the need to fence a section of the river where cattle had direct

access, the opportunity to fence off and protect a wāhi tapu site on a farm, or the merits of improving access to a favourite swimming hole and clearing another one from invasive weeds.

The insights regarding maps and plans should not have come as a surprise. The power of the hīkoi and the visual connection with the environment (in this case provided virtually through the video rather than actually through a hīkoi) had been obvious during several previous wānanga concerning a coastal wetland and stream restoration project along the Horowhenua Coast in 2011 and 2012.<sup>90</sup> It is also one of the key messages in 'Hei Whenua Ora: Hapū and iwi approaches for reinstating valued ecosystems within cultural landscapes' (Smith, S., 2007).

What had not registered, however, was the lack of appeal of printed matter. The observation consequently prompted some discussions of the possibility of developing iwi/hapū management plans in the form of a video. The idea has since been discussed with HRC who appear to be open to it. Coincidentally, other iwi in the catchment have also, quite independently, started to develop video footage as part of their IFS sub-projects to bring the river to their marae and engage people in conversations around desired change.

The wānanga process also confirmed the importance of the use of te reo in the process. Certain concepts do not translate easily and need to be stated in their original form rather than in translation. At the same time it was acknowledged that the plans had to be delivered in a way that was meaningful to councils so that the intent of the plans was not lost in the process.

#### Box 6.2 On a Personal Note: The Personification of the River

The personification of the river from 'flowing matter' into a 'relative' with a 'voice' and the ability to 'govern what people do' was a stretch. And yet, if one accepts, or at least considers, a principle of equality between human beings and other life forms, it becomes more understandable.

The mere fact that our bodies consist of approximately 65% of water, 3% of which get exchanged on a daily basis, shows a very strong relationship between humans and water, the health of the water and the health of the people.

<sup>90</sup> The hīkoi were part of the Manaaki Taha Moana Project, [www.mtm.ac.nz](http://www.mtm.ac.nz).

#### 6.4 SCOPING FOR A PILOT PLAN

This section describes efforts and encountered barriers in the development of a hapū pilot river management plan using the framework developed during the wānanga process.

During the Te Kāuru hui on 2 November 2012, which consolidated the outcomes from the wānanga and discussed the merits of a 100-year planning horizon, members of Ngāti Parakiore volunteered to participate in the development of a pilot plan (Te Kāuru, 2012, unpublished). Permission to include insights from the process in the PhD research was granted at the Te Kāuru hui on 25 January 2013 (Te Kāuru, 2013, unpublished). This was followed by an initial hui on 25 February 2013 with members of the Kani whānau to scope the necessary steps to arrive at a plan. The agreed aim was to develop a pilot hapū RMP for Ngāti Parakiore/Ngā Ruahuihui by July 2013. Insights from the planning process, and in particular, how the framework supports the planning process, were to be documented and shared with the wider Te Kāuru group (Schiele, 2013a, unpublished).

Ngā Ruahuihui is a hapū that was formed by a section of Ngāti Parakiore descendants in 1998. The whakapapa (genealogy) and history of this hapū was shared by one of the family members during the whānau wānanga in March 2013. This helped increase understanding of the multi-layered association of iwi/hapū with geographical areas over time. Unless one has an appreciation of the whakapapa it is extremely difficult to identify tangata whenua.

The pilot plan was to be developed in five stages over a 5-month period, starting with a whānau wānanga to set the scene and begin the dialogue. It was agreed to task participants to think about the question ‘why water’ and to capture stories and key points that could help to develop a vision.

Stage II was about information gathering for Ngā Ruahuihui and the wider Ngāti Parakiore rohe in the Manawatū River Catchment.<sup>91</sup> The list of data to be gathered included: information on landowners bordering the Manawatū and its tributaries in the rohe; resource consent information for water takes and discharges to water; important wāhi tapu and mahinga kai sites; and other information such as consents for oil exploration.

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<sup>91</sup> Note: Parts of the Ngāti Parakiore rohe are outside the catchment.



A second wānanga to be held in Stage III was to include members of Ngā Ruahuihui and Ngāti Parakiore as well as experts in the 100-year planning process, and resource and biodiversity management. The plan was to work on the vision and confirm 'windows of opportunity' to progress the vision over time.

The original approach for Stage IV, discussed in the lead up to the Ngā Ruahuihui wānanga in March 2013, was to develop a written planning document, following a traditional planning approach. This document was to be based on the outcomes from the information gathering and the wānanga. Once completed, the draft plan was to be presented back to Ngāti Parakiore for signoff in Stage V. It was then to be shared with the wider Te Kāuru community and HRC (Schiele, 2013b, unpublished).

## **6.5 ACTUAL PROGRESS TOWARDS A PILOT PLAN**

This section describes what happened during the development of the pilot RMP and why, ultimately, it could not be finalised in 2013. It also captures ideas on the form a pilot plan might take, which were developed in the process.

### **6.5.1 Stage I: Whānau Wānanga – March 2013**

The first stage took advantage of an already scheduled wānanga for whānau on 16/17 March 2013 which was a follow up from an earlier wānanga held in 2001. Key focus of the wānanga was the future of the 285-ha Ngā Ruahuihui farm Ngāpaeruru which lies 24km east of Dannevirke at Mangahei. The sheep and beef farm borders on the Mangapuaka Stream, which is a tributary of the Manawatū River. Until recently the farm had been leased out. The whānau is now considering opportunities to manage the farm for the benefit of future generations. As agreed during the planning process for the pilot, participants were asked to prepare for the session by exploring the question 'why water'.

The actual pilot planning session with the whānau took place on the Saturday afternoon and took 2 hours, followed by further conversation over a meal. The purpose of the session was explained by Henare Kani who also provided a background on the Te Kāuru work. His recollections from the days he grew up were followed by the sharing of recent video footage and a description of what is happening on the farm and the stream today. The once fish- and eel-rich stretch of stream bordering the farm does nowadays offer a much reduced bounty. The video footage taken by Hinetewhiurangi Kani just before the weekend showed prolific algae growth in the stream, which participants did not recollect seeing in their youth. While existing fences should prevent stock from reaching the stream, the video showed that the neighbour on the other side



was grazing cattle on the margins of the stream with cattle having direct access into the stream as well as onto the fenced-off land on the Ngāpaeruru side of the stream. Given that the summer of 2013 had been very dry and the area had been declared a drought zone, the grazing of cattle in the stream might have been an emergency. There is no explicit law preventing the grazing of stock in New Zealand waterways. However, there is the voluntary 'Clean Streams Accord' that requires dairy farmers to fence off streams (Fonterra, 2003).

The video footage also showed spring fed areas on the farm. There is a concern that the health of the springs could be threatened by pending oil explorations on the neighbouring farm to the east. Parts of the farm are erosion prone and could potentially be replanted in trees.

Thoughts on 'why water' and how water is important had been captured on post-it notes leading up to the pilot planning session, and these were shared. They included comments such as: "so that we can go fishing with Daddy"; "we can live without food for a while, but not without water"; "to grow food"; "to swim"; "because we have a responsibility to land and future generations" (Schiele, 2013c).

Participants agreed that the most important part of their plan is a vision that can endure over time and become part of a 'way of life'. Once the vision has been agreed and expressed (possibly in form of a painting or communal artwork – Hinetewhiruangi Kani), a plan can be developed with major milestones identified over a longer (potentially 100 year) timeframe. Actions can be formulated over time (i.e. closer to milestones coming up). All actions can be tested on how well they will or will not support the vision. Whānau will be able to establish whether they can make things happen on their own or require collaboration from others.

The wānanga concluded with a commitment to seek further input from whānau who were not present on the day.

### **6.5.2 Capturing Ideas from the Wānanga around the Format of the Plan**

Based on the dialogue during and following the Ngāti Parakiore wānanga, the effectiveness of a written document has been contemplated. The questioning of the value of a written plan is consistent with the feedback received during the RMPF process involving the four marae. The key concern is that such a document will not be widely read and that it will be difficult to keep the vision alive. While the alternative to develop the plan in form of a video was more appealing, and might be executed in

collaboration with HRC, it requires a deliberate effort and access to technology to 'watch' the plan. Another concern was just how much detail could go into an intergenerational plan, given the uncertainties of the future.

As a consequence, the idea emerged to develop an at-a-glance plan in the form of a large painting, weaving or map capturing the vision. Sites of cultural significance, together with key dates marking opportunities for significant change over three 30-year periods would be included. Such a plan could be displayed on marae and become an ongoing talking point and reminder of the vision. Sites of cultural significance could be targeted for specific improvement projects with councils and other stakeholders. Windows of opportunity or leverage points could, for example, include review dates for resource consent renewals, renewal dates for land leases, harvest cycles for mono-culture forestry blocks, etc. Having this information available can help the hapū concerned to take a proactive approach to developing alternative solutions well in advance of the new decision-making point.<sup>92</sup> Depending on the projects in the respective rohe, hapū and whānau can plan for skill development and funding requirements.

A narrative for each 30-year period can be documented for councils and lodged together with the at-a-glance plan. Councils should then be able to include relevant leverage points and action in their ten, three and one year plans. Collaborative projects for improvement can be pro actively negotiated with iwi/hapū under the emerging Memoranda of Partnership. Figure 6.3 provides a visualisation of an at-a-glance plan.

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<sup>92</sup> Note: Tainui-a-whiro hapū in Raglan has chosen such an approach to address the issue of treated sewage wastewater being discharged to Raglan harbour. After losing an appeal to the Environment Court in 2012 the hapū embarked on a project combining western science with Mātauranga Māori to develop land based discharge options for their marae wastewaters. These options will inform the next decision when the resource consent comes up for renewal in 15 years time. <http://www.maoritelevision.com/search/all/wastewater%20project%20raglan>



**Figure 6.3: At-a-Glance Plan – Concept**

**Source:** Based on Te Kāuru Wānanga and Conversations with Mavis Mullins

**Photo:** Where the Manawatū River Meets the Sea

**Source of the Photo:** Robert Warrington, Muaūpoko

### 6.5.3 Progress following the Wānanga

Dialogue about the plan picked up again in late April 2013, but came to a halt in May due to funding and tikanga issues. HRC had committed at the hui-a-iwi in July 2012 to make funds available for the river management planning activity. This commitment was dependent on an agreed RMPF from the source/mountains to the sea. In a hui between HRC and Te Kāuru on 20 March, 2013, the question was raised whether HRC would be prepared to fund the pilot planning activity ahead of the whole framework being available. HRC declined the request (Morris, e-mail comm., 2013).

When it became apparent that other iwi/hapū needed more time to work on their frameworks, Te Kāuru decided in May 2013 to call the other river iwi/hapū back together to agree at least on a shared value proposition that would guide interactions along the river. However, it was felt that Te Kāuru needed to have signoff from the remaining two marae (Pahiatua and Woodville) for its own RMPF before such a meeting could be called. As outlined earlier in this chapter, this sign-off did not eventuate until September (Woodville) and October (Pahiatua) by which time the overall RMPF progress had begun again.

### Box 6.3 On Resourcing

The IFS project and PhD research funds were considered as alternative funding sources for the pilot planning process. However, it was felt that pushing ahead for the sake of the research would compromise ethical standards as it would ignore the need to follow due tikanga. The option was, therefore, not pursued. By the time the last sign-off was obtained in October 2013, the opportunity to develop the pilot as part of the research had effectively closed.

Reflection: This situation shows competing pressures during research projects. Most researchers work to a given timeframe defined by research grants or University rules on finishing a degree. While the research is very important and the main focus for the researcher, it is not necessarily the top priority for participants. In PhD research, the time–cost–quality dilemma described earlier becomes very real when context and timeframes change. Ultimately, one has to make a call on what is right for the research participants. Not violating due process and pushing through on the timeframes in absence of the correct signoffs was a trade-off between obtaining the insights from the pilot process and gaining a more realistic appreciation of what it takes to follow due process. The decision was made in line with the ethical approval for the research.

## 6.6 PROGRESS ON PAN-IWI/HAPŪ LEVEL: RMPF – SEPTEMBER TO NOVEMBER 2013

This section returns to the pan-iwi/hapū RMPF efforts. It starts with an update on progress provided by the four groups at the hui-ā-iwi on 17 September 2013. This is followed by a brief description of the Ngāti Raukawa RMPF process in October/November 2013. It finishes with a summary of the efforts to agree on a shared value statement and the report back to the MRLF meeting on 14 November 2013.

### 6.6.1 Hui-ā-iwi 17 September 2013

HRC called a hui-ā-iwi on 17 September 2013 ‘to regroup and check progress, in order to present a collective update at the MRLF meeting in November’. The importance of developing the iwi plan was again stressed (Schiele, 2013d, unpublished). Reports from the various groups showed that while some progress had been made, the approaches were quite diverse.

ROM, who had stated at the first hui-ā-iwi in 2012 that they had already gone through the process of developing a RMPF, shared their progress in mapping sites of significance in GIS. In the process they had identified sites at which they had begun a

CHI monitoring process. Three sites within the Palmerston North City boundaries had been identified as target sites to restore aspects of their historic significance.

Te Kāuru reiterated the state of the RMPF and provided an update on their various projects. Ngāti Raukawa gave an update on their RMPF related hīkoi in Tokomaru that had taken place in May 2013. They also stated that they had appointed a paid coordinator to organise three wānanga in the month of October to conclude the RMPF process with the 25 Ngāti Raukawa/Ngāti Kauwhata hapū. Muaūpoko indicated that they were on the cusp of embarking on a GIS exercise. They stressed that overlaps with other iwi were recognised and that a way would have to be found to acknowledge historic interests.

In the discussion following the presentations, it was acknowledged that each group has their own specific framework and way of going about things. The question was raised whether pre-European cultural values pertaining to freshwater are still valid today and whether they could constitute the backbone for the efforts of the collective. There was consent in principle. The value statement developed by iwi/hapū in 2010 (see Appendix 2) was mentioned as a good starting point. This statement had been developed as an input to the Leaders' Accord process. It was presented during the action planning process and constituted the basis for the iwi/hapū actions in the action plan. It had also been shared at the Te Kāuru wānanga, where it was acknowledged, but not specifically integrated into the RMPF.

The hui-ā-iwi concluded with a commitment to work towards a collective value statement to be presented at the MRLF meeting in November. It was agreed to have a follow-up hui at Rangiotu Marae in early November to agree on the statement. Raukawa committed to finish their process in time for the collective hui (Schiele, 2013d, unpublished).

### **6.6.2 The RMPF Effort: October – November 2013**

A major effort was required to connect with the 25 Ngāti Raukawa/Ngāti Kauwhata hapū. There was a series of interviews and small workshops with kaumātua, historians, and other experts that gradually built up the cultural map for Ngāti Raukawa and Ngāti Kauwhata in the area. These efforts were complemented by three larger hui that gave the wider hapū community an opportunity to engage, critique, and enhance the evolving narrative and maps. The first hui took place on 13 October at Poutu Marae in

Shannon, the second on 22 October in Feilding, the third on 10 November at Foxton. The last hui was followed by the pan-iwi/hapū hui at Rangimarie Marae at Rangiotu on 10 November and a hui-ā-iwi with HRC at Rangimarie Marae on 11 November.

The focus of the Raukawa hui was to document the historical narrative and a cultural map to reconnect hapū in the area. The process once more demonstrated the historic complexity and the need to acknowledge multiple layers of interests when engaging with iwi/hapū in the area. Strictly speaking, the process was not aimed at developing a RMPF. Instead it worked towards a set of values that could be brought to Rangiotu for discussion with the other iwi/hapū groups. The strong theme or value set emerging from the process was about connectedness with each other in the region through whakapapa, whanaungatanga, shared histories and peace keeping.

With one exception, all iwi/hapū groups gathered at Rangimarie Marae in the evening of 10 November 2013. The plan was to develop a shared-value statement. Some 40 people had been welcomed onto the marae and gathered in the meeting house. Before the coordinator had a chance to start the planned proceedings, one of the participants invited everybody to introduce themselves. The tikanga or tradition of passing the tokotoko (talking stick) around took precedence over the agenda. By the time everybody had a chance to introduce themselves and share their story the allocated time had run out and the call to supper was sounded.

The group reconvened the next morning at Rangiotu. It was joined by three representatives from HRC and the Chairman of MRLF. Once again there was no opportunity to develop a shared-value statement. Instead, the various group and hapū representatives shared their thoughts, ambitions, and concerns. Te Kāuru proposed to adopt the idea of **Tū te Manawa**. This reflects the notion of uplifting the hearts as the heart of the ancestor Haunui a Nanaia was uplifted by the beauty of the land of the Manawatū. Respect for the river and the vision of reviving the mauri of the Manawatū should be nurtured and maintained.

The importance of indigeneity was stressed by one of the hapū representatives. It entails allowing people to live in their rohe according to their values and customs. At the same time, it should be understood that Māori tikanga cannot be pinned down in one formula – there are many variations. The adaptability of Māori to changing contexts, i.e. taking advantage of opportunities was described as ‘legendary’. It was stated that Māori are about grassroots – the people on the ground are the people who matter. Many are doing things for the love, rather than money. This, however, leads to

a range of concerns. First of all, there are too many demands on people who also have day jobs. The choice of meeting times during the day impacts on those who have jobs not related to the river. Not all iwi/hapū have the necessary skills and knowledge required.

Second, there is a continual process of being talked 'at', rather than listened to. This point had also been made during the Te Kāuru RMPF wānanga. It was suggested that there needs to be an accepted responsibility by all to get the water right. It was proposed to create an opportunity to kōrero (engage in dialogue, talk) and follow the course of the river from the source where it is pristine to Foxton where it is degraded. Alternatively, meetings on marae could provide another level of connectivity to the river and the people than a conference room could. Tino rangatiratanga, the process of self-determination, is connected with meeting in the house (at Rangiotu) – under the watchful eyes of the tupuna. Lastly, the aggregation of people into bodies such as iwi organisations can impact on the connectedness of people along the river.

The Ngāti Raukawa presentation picked up on the emerging theme of connectedness. It focused on whanaungatanga – connections and relationships between people and the river. A second concept, kotahitanga, was used to demonstrate the need for unification in purpose and direction. Manaakitanga (hospitality) was linked to the health of the river. The importance of wairuatanga, affirming and respecting spiritual belief systems, and the use of te reo to capture the deeper meaning of Māori concepts, were stressed. Again this was in line with outcomes from the Te Kāuru wānanga. Ukaipotanga (nurturing and sustenance) stressed the place based relationship with the river as a source of nurturing and sustenance. Last, the concepts of kāwanatanga (government, rule) and tino rangatiratanga made the connection to the Treaty and to working in partnership.

In addition to the contributions to values, participants pointed out that there are known regional solutions to discharge to land. A range of resource consents coming up in the region during 2014/15 present an opportunity for pan-iwi/hapū collaboration. It was also suggested to lobby for a reduction of consent run times from 25/30 years to 5/10 years.

Some of the sentiments expressed at Rangiotu were acknowledged at the MRLF meeting on 14 November 2013. One of them was the need to think about funding to connect the community back to the river. The other was about giving iwi/hapū an opportunity to assess progress against the goal to enhance the mana and pride of the river in a marae setting.



Since no collective statement had emerged, the four groups gave individual updates at the meeting. Of note was the contribution from one of the Muaūpoko representatives who suggested that a 1000-year plan could cater for the life cycle of the slowest growing native trees. The point was also made that the ongoing issues with water quality in the Manawatū have had an impact on at least five generations of tangata whenua between 1890 and today. The need to work more closely with hapū on the ground was stressed by a representative from Ngāti Apa who attended the Forum for the first time.

### **6.6.3 Reflection on the Pan-iwi/hapū RMPF Process**

Looking back at the RMPF events, it appears to me that the four iwi/hapū groups were in a similar space but in different locations on a multilayered time/space continuum (the same applies for other stakeholders along the river, which makes things even more complicated, but this aspect will not be addressed here):

Starting at the source, *Te Kāuru* had a 2-day wānanga in September 2012. The process was hapū-based and started at the source. It involved tangata whenua at four marae. The result of this wānanga was a draft RMPF that acknowledged the need to write a plan that resonates with hapū, while at the same time providing a link to council plans. The framework has since been ratified by all four marae in a second round of consultations. *Te Kāuru* is ready, in principle, to start with its first hapū management plan as soon as a framework from the source to the sea has been agreed or, in absence of that, HRC is prepared to fund individual groups to embark on their plans as they are ready to go.

*ROM* take an iwi-based approach. They are arguably the most advanced of the four groups as far as GIS mapping and the development of a CHI is concerned. It was stated at this hui that TMI is the science arm of Rangitāne and focuses on science and monitoring. In addition *ROM* are re-connecting whānau with the river through other programmes and activities.

*Ngāti Raukawa/Ngāti Kauwhata* take a hapū-based approach. The environmental organisation *Taiao Raukawa* has probably the highest number of active projects on the ground working with communities. The challenge for *Ngāti Raukawa/ Ngāti Kauwhata* is the sheer number of hapū – 25 – in the catchment. The process of working through place-based history and values has brought these hapū more closely together.



*Muaūpoko* has the smallest share in the Catchment. Their main concern is that whatever the river brings to the sea, impacts on their kai moana (seafood). *Muaūpoko* take an iwi approach and have focused on developing project based relationships with HRC and HDC. Whānau are included in the projects and invited to re-connect with their history and environment.

No matter where the individual groups are at, they all share a passion and responsibility for the well-being of the river and a lack of resources and capacity to do this passion justice. Unlike council staff, who get paid to do the work, most people from iwi/hapū volunteer their time to engage in work concerning the river, whether it is about resource consents, community projects, MRLF or other activities.

#### Box 6.4 Reflection on Outcomes from a Western and a Māori Perspective

From a western project management point of view, the process failed to deliver against agreed timelines and outputs on several occasions. This is an issue for HRC who need to be seen to meet their deadlines and account for money spent on the process.

For iwi and hapū the most important thing is to provide the space for everybody to provide input. The challenge of working with a pool of volunteers leads to potentially long drawn out processes. However, the Te Kāuru example showed that things can be done very quickly and efficiently once an opportunity presents itself. The 28-hour timeframe to develop the framework across the region was impressive. The signoff process showed the other extreme. It was difficult to find time for a task that in itself would take less than a couple of hours.

## 6.7 SUMMARY

This chapter has described the events around the attempt to develop a RMPF. Te Kāuru took the lead in developing a river management planning framework in September 2012. The process demonstrated very clearly that hapū do not approach the restoration of river health as a series of problems to be solved. The shared maps and MRLF Action Plan found little resonance. Instead, participants responded to the video following the river from its source to the gorge. Places of significance along the river prompted historic narratives and a desire to improve specific sites. Participants approached the restoration of wai-ora and mauri of the river through their relationship with the river. The title 'Te Karanga a Te Awa' for the proposed planning framework, signifies how the river calls its people to task.

“Are we being listened to or is it being interpreted? – ‘I talk and you go away and write down what you think I said’”. This quote captured in the Whakawhitiwhiti kōrero (dialogue) section of the outcomes presentation from the wānanga, highlights the challenge in doing the contents of the framework justice. Linking back to Chapter 4 and the observations on the challenge of listening reinforces the need to arrive at another level of communicating. Communication needs to be able to grow mutual understanding and respect for another relationship with the river.

The need for a long-term vision and a pro-active approach to planning was recognised. Ngāti Parakiore volunteered to develop a hapū pilot plan based on the framework. Due to the need to follow tikanga, i.e. wait for sign-off from all TK hapū and the development of a pan-iwi/hapū framework, the pilot planning process did not move beyond an initial wānanga.

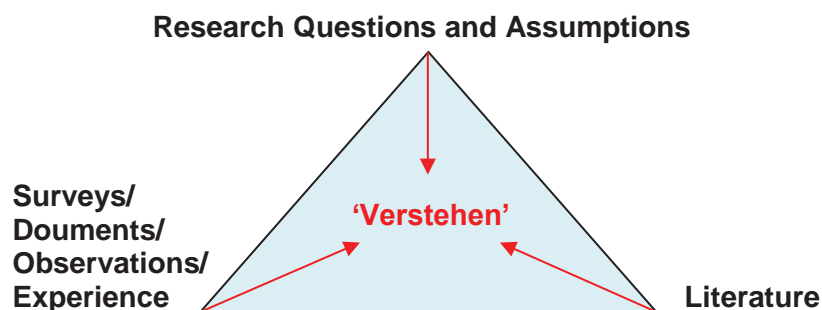
Likewise, the pan-iwi/hapū RMPF did not eventuate in the time frame of the research. The groups acknowledged that they all have their own approaches and ways of doing things. An endeavour to agree on a collective value statement to guide future planning efforts is still work in progress.

#### Box 6.5 Insights from the Process of ‘verstehen’

- When the time is right and the right people have congregated, things can be done with speed and efficiency
- Protocol overrides deadlines – it is more important to follow tikanga than to meet a deadline set by outsiders
- Pressures on a small pool of volunteers lead to long lag times in getting things done
- Funding helps create opportunities to make things happen
- The high number of autonomous iwi and hapū in the region requires a high degree of flexibility from councils and other stakeholders. They are not dealing with one body of ‘Māori’ who work towards the same plan within the same timeframes. Instead there are multiple autonomous groups with varying levels of resourcing, skill and funding
- All the above introduce high levels of uncertainty in the interaction between councils and iwi/hapū. Long lapse times between actions suggest a long time to effect change

## CHAPTER 7. THE VOICE OF MĀORI IN THE MANAWATŪ RIVER COLLABORATION – A FRAMEWORK FOR VOICE – PART I

Chapters 4–6 documented the three phases of the case study. They contain the experiential part of ‘verstehen’ based on the IFS/MRLF action planning process, the MRLF funding and implementation processes, and the RMPF efforts. Chapters 7 and 8 complement selected experiences relating to the voice of Māori with knowledge held in the wider literature. The triangulation of the research questions and underlying assumptions, with the experience gained and insights from the literature, represent the level of ‘Verstehen’ achieved at this point. As outlined in Chapter 3, the process of ‘verstehen’ itself is iterative and ongoing and will continue beyond the scope of this research. The process of triangulation is depicted in Figure 7.1.



**Figure 7.1: Triangulation of Research Questions, Data Analysis and Literature Towards ‘Verstehen’**

In the process of structuring and synthesising the material gathered throughout the three phases of the case study, a framework for voice gradually took shape in the first half of 2013. The framework helped focus the literature review. The discussion of the framework is divided into two parts: Chapter 7 addresses the first two research questions in alignment with the first part of the framework; Chapter 8 addresses research questions 3 and 4 in alignment with the second part of the framework. Finally, the framework was presented to the IFS/MRLF iwi/hapū participants. Feedback was gathered with the help of semi-structured interviews. Participant feedback and resulting changes to the framework are documented in Chapter 9.

### 7.1 INTRODUCING THE FRAMEWORK FOR VOICE

The framework, as depicted in Figure 7.2, is constructed around the large ‘V’ for Voice at the centre. Voice is placed in the context of values, location, and time. Values are associated with the utilitarian/exploitative–spiritual worldview continuum. As described in Chapter 2, this continuum reflects the range of possible value systems impacting on freshwater management. The pursuit of enhanced mauri and mana for the river has

been captured at the centre of the 'V'. Four values surround it, with three – kaitiakitanga, tino rangatiratanga, and whanaungatanga – emerging from the case-study material. A fourth value, tui, tui, tuia<sup>93</sup> (binding together) was added based on insights from conferences and the literature.

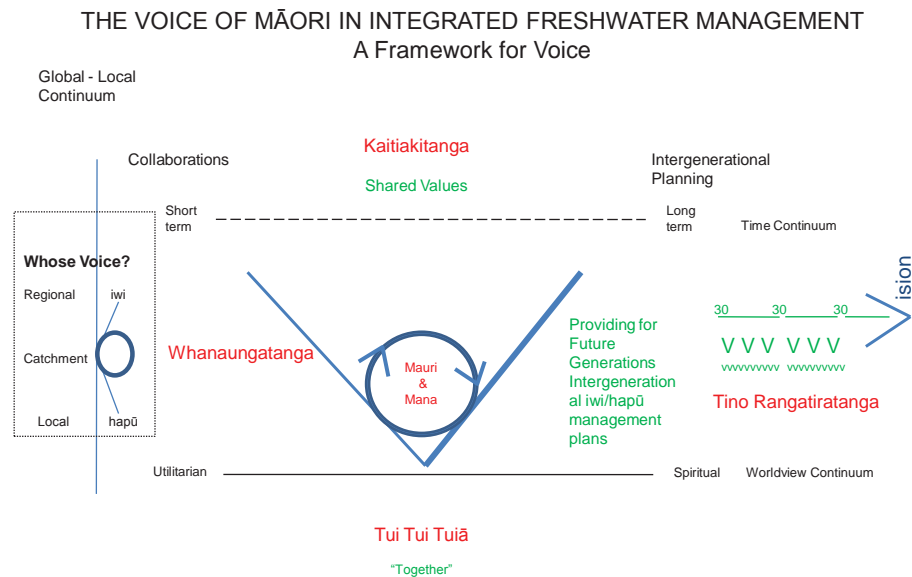
Location of voice is captured with the help of the geographical continuum that was used in Chapter 2 to show the scale of integrated freshwater management. The voice of hapū is based at the local level, the voice of iwi at the regional level of the local–global continuum. The interplay of the voices of iwi and hapū in catchment management are captured through a horizontal '<' form. The circle in the form indicates dialogue between iwi and hapū.

The time continuum captures the short-term to long-term iterations between collaborative efforts and intergenerational planning. The need to include intergenerational planning in the ultimate pursuit of mana and mauri for the river was identified in the RMPF process with Te Kāuru. It reflects the long-term aspects of restoring river health, mauri, and mana. There is a need to hold a shared vision, depicted in the '>' on the right-hand side, for future generations. Intergenerational plans, broken down into three 30-year periods on the right-hand side, can be lodged and connected with the planning of regulatory institutions' long-term (10-year) and short-term (3-year and 1-year) plans. This link is depicted by the two rows of small 'v's below the three 30-year periods leading towards the vision.

Ways to action the plan towards the vision are established in a series of collaborative efforts. The iterative nature of short-term collaboration and intergenerational planning is captured by the circle surrounding mauri and mana at the heart of the 'V' for voice. The right-hand upwards line of the 'V' is in bold to show the increasing weight of the voice of Māori over time.

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<sup>93</sup> Note: The spelling in the text is different from the spelling in Figures 7.2, 8.1, 8.4, 9.1 and 9.2. This is due to the fact that I picked up the incorrect spelling during a workshop. The spelling was corrected during the interviews seeking feedback on the framework of voice. I have consequently corrected the spelling in the text, but not in the figures concerned.



**Figure 7.2: Draft Framework for Voice at a Glance – Status June 2013**

Figure 7.3 contains part I of the framework that is the focus for this chapter in the triangulation of experience, literature, and the first two research questions and underlying assumptions:

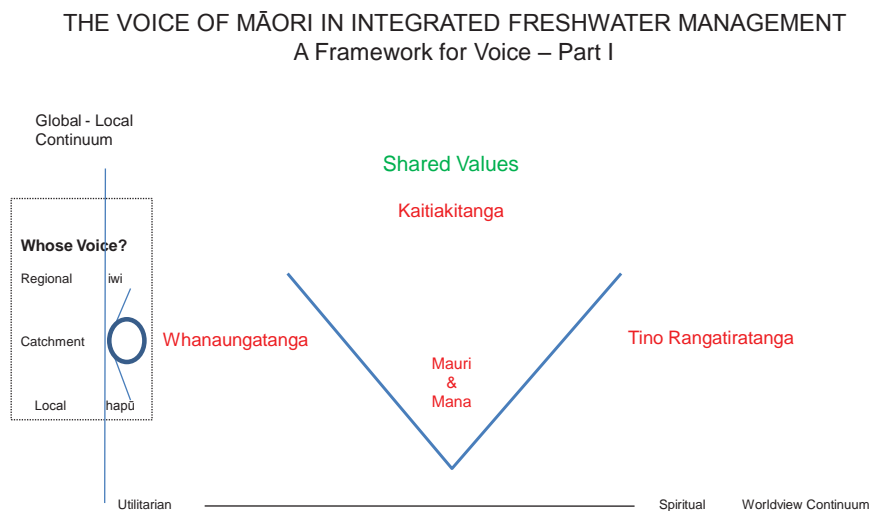
*Research Questions 1:* How are cultural values reflected in the process of (or outputs from) action planning, funding, and implementation?

- *The underlying assumptions* at the beginning of the research process were: that Māori as kaitiaki provide another perspective on how to address the current issues with freshwater so that alternative or additional solutions reflecting cultural values can be found. In addition it was assumed that all Māori are kaitiaki and approach river management in a similar way, possibly with local variations (see Chapter 3).

*Research Question 2:* What gives Voice in the (collaborative) process?

- *The underlying assumptions were:* that all Māori share the same worldview and that there is one collective 'Voice' of Māori. Furthermore it was assumed that all four iwi/hapū groupings along the river were committed to work together in the interest of restoring the river to some degree of health. There would be challenges to make the voice heard, and to develop joint solutions that go

beyond the standard western solutions in integrated freshwater management (see Chapter 3).



**Figure 7.3: Draft Framework for Voice - Part I**

A description of the cultural values applied, expressed, and documented during the three phases of the case study addresses the question ‘How are cultural values reflected in the process of and outputs from action planning, funding, and implementation’. The triangulation of these values with insights from the literature is done at the end of the chapter, following the discussion of the question ‘What gives voice?’. This approach has been chosen deliberately to stay true to the process of investigation and ‘verstehen’.

‘What gives voice in the process?’ combines observations from the IFS/MRLF action planning workshops and the MRLF meetings with feedback received in the IFS post workshop surveys. Two aspects of feedback captured in Chapter 4 form the base for the discussion in this chapter. The first aspect is a reflection on who speaks and with what authority. The second aspect is concerned with the challenge of listening in the context of complexity of the topic on hand, different worldviews and languages. The cultural values described at the beginning of the section are picked up and triangulated with insights from the literature in the next section. The chapter concludes with a small modification to the framework for voice, namely the inclusion of the voice of the river.

## **7.2 HOW ARE CULTURAL VALUES REFLECTED THROUGHOUT THE THREE PHASES OF THE CASE STUDY?**

Chapters 4–6 captured emerging values and how they were integrated into documents such as the Manawatū River Leaders' Accord and Action Plan, and the Te Kāuru RMPF. This section consolidates the observations and provides some additional insights, based on an improved level of 'Verstehen' gained during the literature review, and interactions with iwi/hapū participants outside the formal IFS/MRLF processes.

### **7.2.1 Cultural Values and Workshop and Meeting Protocol**

IFS workshops and MRLF meetings were initiated and closed with a karakia or inoi (prayer) in acknowledgment of Māori custom. The opening karakia is aimed at focusing the mind on the task at hand. The closing karakia releases people from the task (Metge, 2001).<sup>94</sup> As a rule, the most senior representative of the tangata whenua in the room was asked to perform the opening and closing. The task could be passed on to another participant, theoretically including Pākehā. The designated person chose whether to perform a karakia or inoi and whether to do so in te reo or English. At times, translations were offered following a delivery in te reo.

With the exception of the November 2013 hui-ā-iwi, which was held at Rangimarie Marae at Rangiotu and constituted the last hui falling into the timeframe for the study, all IFS/MRLF workshops and MRLF meetings were held in a western conference room setting. Only following this hui-ā-iwi, did the Chairman of MRLF propose at the November 2013 MRLF meeting to hold one of the 2014 MRLF meetings at a marae. This was on the proviso that iwi/hapū were prepared to extend an invitation to host MRLF on marae.

### **7.2.2 Cultural Values Reflected in IFS/MRLF Action Planning Process and Resulting Plan**

On a generic level, and as outlined in Chapter 4, the MRLF Action Plan accommodates te reo, including the use of macrons, the integration of whakataukī (proverbs) and the unconditional listing of iwi/hapū connections to sub-catchments. As stated by iwi/hapū: "Any statements made in regards to cultural values and historical connections to specific areas have been made by individual iwi/hapū as they saw appropriate and have been included in the document as presented" (Manawatū River Leaders' Forum,

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<sup>94</sup> Sir Apirana Ngata describes karakia to Io, the one Creator, as formulae that were only employed in matters of utmost significance, such as births or deaths or in the opening of schools of learning (Ngata, undated).



2011, p. 5). This statement was included in acknowledgement of the Treaty Settlement process running in parallel with the MRLF activities.

### 7.2.2.1 Cultural Values – Kaitiakitanga and Tino Rangatiratanga

The inclusion of whakataukī in the MRLF Action Plan was noted in Chapter 4. As the process of ‘verstehen’ progressed, two main themes implicitly contained in the choice of whakataukī emerged. As shown in Table 7.1, one set of whakataukī alludes to the relationship of iwi/hapū with the river and the land, which I have associated with kaitiakitanga. The other set expresses the desire of iwi/hapū to be seen as equal partners with rights of tino rangatiratanga in accordance with the Treaty. Table 7.1 lists the whakataukī under the two categories.

**Table 7.1: Whakataukī and Their Underlying Message**

Relationship with the river and the land <b>Kaitiakitanga</b>	Partnership <b>Tino Rangatiratanga</b>
Kei te ora te wai, kei te ora te whenua, kei te ora te tangata – If the river is healthy, the land and the people are nourished	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
E huahua te kai pai, he wai te kai pai – Humans cannot survive without freshwater	He pukenga wai, he pukenga tangata – a large gathering of people is like water flooding the land
Ko au te awa ko te awa ko au – I am the river and the river is me	He manga wai koia kia kore e whitikia? – Nothing ventured, nothing gained
He rākau ka hinga i te mano wai – Value life while you have it	

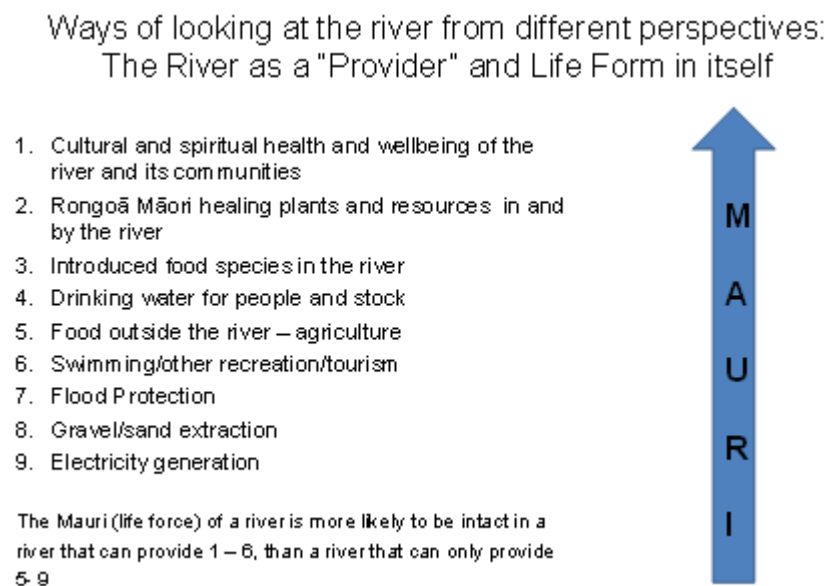
**Note:** The whakataukī and their translations have been reproduced verbatim as stated in the Action Plan. Māori words are not incorporated in the Glossary, unless used elsewhere.

Kaitiakitanga and tino rangatiratanga are linked to the inclusion of the concepts of mana and mauri in the Action Plan. The word ‘mana’ has over time become part of the New Zealand vocabulary and is being used widely in every day communications. Mana forms part of Goal 1 of the Leaders’ Accord: “The Manawatu River becomes a source of regional pride and mana” (Manawatū River Leaders’ Forum, 2010). As with other Māori concepts that have found their way into mainstream English, the question is, to what extent has the original intent of the concept been preserved and is it clearly

understood? The concept of mana was not explicitly discussed during the workshops. It will be discussed in more detail in the context of the question ‘what gives voice’.

### 7.2.2.2 The Concept of Mauri as Experienced in the Workshops

The word mauri is less common in everyday use. It was a rather challenging concept to communicate and understand. This is evidenced by the iteration of visual descriptions. The concept of mauri was described by iwi/hapū participants during the first IFS/MRLF workshop. My own difficulty in understanding exactly what mauri represented was combined with a sense that this difficulty was shared by other non-Māori participants. At the same time, I perceived that the concept was of particular importance to iwi/hapū participants. This prompted me to try to depict the concept for discussion in the next workshop. Figure 7.4 shows this first attempt, which was presented but not discussed in any detail during workshop 2. So foreign was this first attempt to visualise the concept through a linear arrow that one of the iwi/hapū participants commented during the second review that it had completely escaped him the first time round.



**Figure 7.4: The First Attempt to Capture the ‘Essence’ of Mauri**  
Presented at IFS/MRLF Workshop 2 by H. Schiele

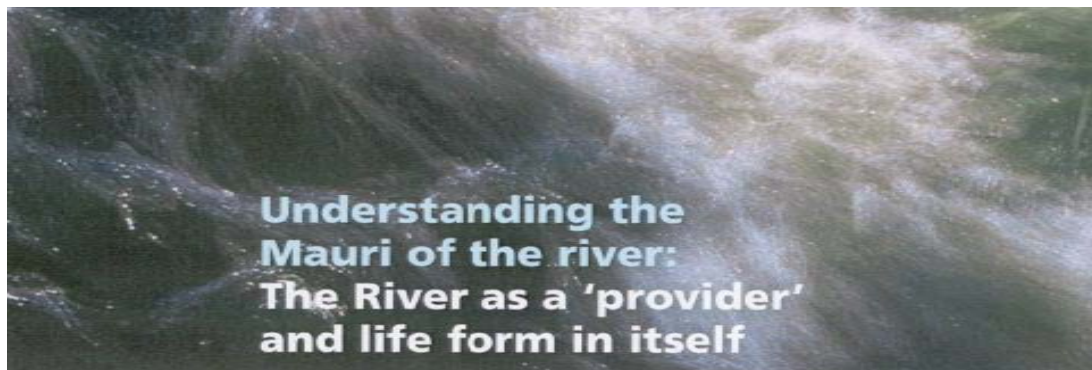
Figure 7.5 shows the next attempt to visualise the increasing value of well-being with increasing levels of energy flow. A spiral-like figure was chosen to highlight the text. It starts narrow at the bottom where value and energy are the lowest, to open up widely at the highest level of well-being and energy flow. This image and other images were discussed and further developed outside the workshops with representatives from iwi/hapū.

## Mauri

Cultural and spiritual wellbeing, a healthy community  
 Customary food sources in the river  
 Introduced food species in the river  
 Drinking water for people and stock  
 Swimming and other recreation  
 Food outside the river – agriculture  
 Flood protection  
 Gravel/sand extraction  
 Electricity generation

**Figure 7.5: Interim Step in the Development of the Concept of Mauri for IFS/MRLF Workshops**

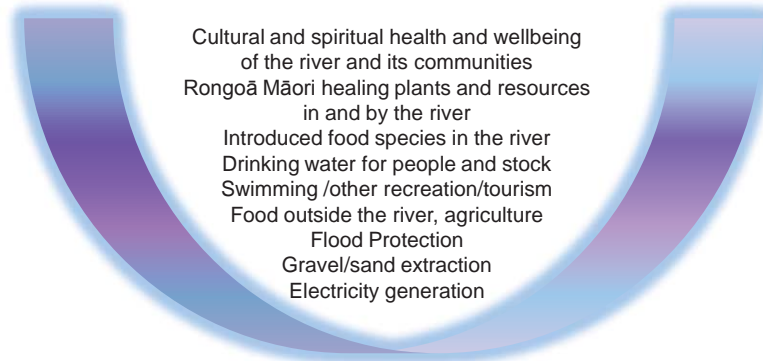
Ultimately, the spiritual dimensions and the energy inherent in mauri, together with the connection between mauri and human well-being, were captured in a simple statement following the second discussion in workshop 5. It acknowledges the River as both a provider and life form in its own right. This is captured in the headline on Page 4 of the MRLF Action Plan as shown in Figure 7.6.



**Figure 7.6: MRLF Action Plan Heading**  
**Source:** MRLF Workshops/Manawatu River Leaders' Forum Action Plan, 2011, p.4

The many contributions of the river as a provider are captured in Figure 7.7 (See also Figure 4.7). “As we allow the river’s mauri to flourish, the river’s ability to provide will increase” and “As the river’s mauri shrinks, its ability to provide will shrink too” (Manawātū River Leaders’ Forum, 2011, p. 4). The shape of a bowl was chosen as it links to the shape of the riverbed itself and the bounty (ecosystems services) it can potentially provide. The colouring and blurred outlines of the shape reflect the energy inherent in mauri (see also Chapter 4).

**As we allow the river's mauri to flourish, the river's ability to provide will increase**



**As the river's mauri shrinks, it's ability to provide will shrink too**


**Figure 7.7: The Final Version – Mauri and the 'Bowl of Plenty'**

**Source:** MRLF Workshops/Manawatū River Leaders' Forum Action Plan, 2011, p 4

The Action Plan states further:

Mauri as the life force for all beings and things was brought closer to the group by iwi representatives comparing the waters in the catchment to blood flowing in the human body. Only if the life force is strong and healthy, can the river, like a healthy body, fulfil its role as a provider (p. 5).

A concept of reciprocity or utu, although not explicitly named as such, shows a pathway towards mauri. It is captured in acknowledging the need to give and take and strike the right balance to preserve the mauri of the river. Last, mauri found its way into the outcomes and indicators table as the ultimate indicator of river health. It is based on the performance triangle developed during the workshops (Figure 4.8). Figure 7.8 shows the adapted indicator table from the Action Plan.

MAURI	
<b>TRADITIONAL FOOD SOURCES</b> <b>SWIMMABLE, ACCESSIBLE &amp; SAFE</b> <b>ECONOMIC PROSPERITY</b>  <b>TROUT</b>	Cultural/Social/ Outcomes
<b>CULTURAL INDICATORS</b> Cultural Health Indicator <b>BIOLOGICAL INDICATORS</b> Macroinvertebrate Community Index, fish populations, GPP, bacteria <b>PHYSIO-CHEMICAL MEASUREMENTS</b> Dissolved Oxygen (metabolism), physical habitat – sediment, flows, nutrients, toxins, temperature, turbidity	Mātauranga/ Science
<b>ACTION MEASUREMENTS</b> Point source reductions, fencing, riparian planting, land use changes, etc.	Leaders' Forum Actions

**Figure 7.8: Adapted Indicator Table**

**Source:** Manawatū River Leaders' Forum Action Plan, 2011, p. 24

During the workshops, two images were frequently used, to help non-Māori participants with relating to mauri and mana: 1: 'Mountains to Sea' stresses how everything is connected from the mountains (or the source) to the sea. Indirectly this theme is captured by the whole of catchment nature of the plan; 2: 'Cloaking the River' (with native bush) encapsulates the need to protect the river's water quality and to create habitat. Habitat is the prerequisite for all life forms associated with the river, in-stream and along its banks and including humans, to flourish.

In addition, Te Kāuru introduced different types of water from wai-ora to wai-mate during the RMPF process. These states can be connected with the mauri of water as described above and could constitute a more holistic assessment of river health.

### 7.2.2.3 Linking Cultural Values with Solutions

The various values and related images used throughout the workshops can be linked to proposed actions. Table 7.2 shows the values and images and how they relate to solutions proposed by iwi/hapū during the workshops. As mentioned in Chapter 4, a range of solutions proposed by iwi/hapū only made it into Appendix B of the plan.

**Table 7.2: Values/Images and Related Solutions**

Values/Images	Related Solutions
Mauri and mana	Don't pollute in the first place*
Mauri and mana are inherently connected with each other. If the life force is well and the environment can provide generously, the mana will be equally great. If the mauri diminishes, the mana will diminish and vice versa.	Mahinga kai restoration Co-governance and/or collaboration around remedies for fish barriers, fisheries, etc. Allocation of Treaty funds to restoring the mauri and mana* Protection of wāhi tapu sites
Rivers flow through Papatuanuku like blood through the veins in the human body	Don't put waste into the river – discharges to land* Public/private partnerships with iwi around waste water treatment*
Everything is connected from the mountains to the sea	Removal of pests from land and waters*
Bush is to the river what a cloak is to a human	Re-establishment of native habitat Riparian planting

\*Solutions to be found in Appendix B. All unmarked solutions are reflected in the task list of the plan.

In essence, actions in the action plan with a direct link to cultural values are primarily about the protection of wāhi tapu sites, the restoration of mahinga kai sites, and customary fisheries.

### 7.2.3 Additional Cultural Values Captured During Funding, Implementation and RMPF Processes

The range of cultural values shared by iwi/hapū did not change significantly during the funding and implementation phases as shown in Chapter 5. However, the funding process and its outcomes led to the following reflection on tino rangatiratanga and utu.

### Box 7.1 Reflection on Tino Rangatiratanga and Utu

The ongoing 'grief' about the outcomes of the funding process and the allocation of the bulk of the \$5.2m towards point source dischargers suggests there is a need to gain a better understanding of how reciprocity works. Iwi/hapū participation was instrumental in getting the money in the first place.

- Given the idea of partnership inherent in the Treaty of Waitangi, is it a matter of providing equal funding to the two Treaty partners – potentially over a period of time?
- Or is it a matter of providing equal opportunities to engage in the process of determining the solutions to be implemented with the money?

The answer to this question still escapes me, despite various conversations on this topic. Different people seem to have different perspectives of how a more appropriate outcome could have been achieved.

During the RMPF process, additional concepts became visible. 'Whanaungatanga ki te awa' – relationship to the river – was the first item on Te Kāuru's list of values. The concept describes the relationship of people with the river but also with each other. Te reo o te awa – the 'Voice' of the River and Te Karanga a te Awa – the 'Call' of the River – captured, for example, in historical narrative and waiata (chants), but possibly also in the results from cultural health monitoring, together with te reo o te tangata, the people's voice, suggest interaction and a form of dialogue.

On reflection, whanaungatanga had been implied by iwi/hapū participants throughout the IFS/MRLF workshop process. The need to understand the interconnectedness of everything from the mountains to the sea was stressed on a regular basis. This not only includes the connectedness of all the waters but also the connectedness of the waters with the land and the fauna and flora. In addition, iwi/hapū members engaged actively in relationship building with other workshop participants.

Whanaungatanga also featured in Ngāti Raukawa's engagement with hapū towards a cultural value statement in the pan-iwi/hapū RMPF process. In addition, Ngāti Raukawa introduced the concepts of whakapapa (genealogy or layering of relationships of all things animate and inanimate). Kotahitanga (working in unity), which had implicitly united iwi/hapū participants during the IFS/MRLF workshop process, was explicitly stated for the first time. Manaakitanga (hospitality) and ukaipotanga (the connection of



humankind with place) and the idea of intergenerational responsibility were also part of the Ngāti Raukawa value set.

#### 7.2.4 Summary of Key Insights on Values

Some effort was made during the IFS/MRLF workshops to achieve a better understanding of cultural values. In essence iwi/hapū focused explicitly on **mana** and **mauri** and implicitly on **kaitiakitanga**, **tino rangatiratanga**, and **whanaungatanga**. Mana and mauri are explicitly stated in the plan. Mauri has been visualised in form of the 'bowl of potential plenty' (Figures 4.6, 7.7) and as the ultimate measure of success in the measurement framework (Figure 4.7, 7.8). Kaitiakitanga and tino rangatiratanga are reflected in the choice of whakataukī. Whanaungatanga underpinned the building of new relationships throughout the IFS/MRLF processes.

The cultural values reflected in the body of the Action Plan were a first step towards giving IFS/MRLF participants a different perception of the river. To date the impact of cultural values on the actions and resulting funding and implementation process is limited. It is reflected in the need for further dialogue and for the need to protect wāhi tapu sites and restore mahinga kai sites of significance.

Experienced insights are triangulated with observations from the literature following the description of the experiences informing the question 'What gives voice in the process?'

### 7.3 WHAT GIVES VOICE IN THE PROCESS?

The discussion of 'What gives voice in the process?' focuses on the voice of Māori. It is not a discourse on a more generic concept of voice; nor does it cover aspects of the voice of Pākehā or power associated with decision making in integrated freshwater management.

As described in Chapter 4, presence and active participation are understood to be prerequisites to being heard. Iwi/hapū were not invited to the first Leaders' Accord meeting – instead they had to claim their right to be there. During the IFS/MRLF workshops iwi and hapū were deemed to be one stakeholder group, represented by four active participants and four observers whose presence was optional. The analysis in Chapter 4 showed that iwi/hapū participants in the IFS workshops attended diligently and participated actively in the discourse.

In the post-workshop questionnaire, participants (excluding iwi/hapū participants) ranked the voice of iwi/hapū as the one that was heard the most. They ranked it at 3.56 points out of a possible 4. Iwi/hapū, however, believed they had been heard at a much lower rate: 2.5 out of 4. The analysis of attendance and engagement data indicated that engagement, while being a prerequisite to being heard, did not necessarily result in being understood.

Based on this insight, the following two aspects of voice were chosen to gain a better understanding of ‘what gives voice’. Some of the material from previous chapters is repeated, but viewed from a different level of ‘Verstehen,’ which has evolved since the original analysis and in the context of insights garnered from the literature. The first aspect concerns the question ‘who is speaking’.<sup>95</sup> It covers pan-iwi/hapū as well as intra-iwi/hapū aspects. The potential for dialogue between the voice of individuals and the river is examined. The second aspect deals with the context in which listening takes place. It discusses the challenges presented by the complexity of the matter in a cross-cultural setting with different languages and underlying worldviews.

### **7.3.1 Who is Speaking? – The Voices of Māori**

At the time of choosing the title for the research, “The Voice of Māori in Integrated Freshwater Management” my underlying assumption was that there was one voice of Māori as far as the expression of cultural concepts was concerned.

This assumption gradually became untenable as the process of ‘verstehen’ took its course. On a national level, the Iwi Leaders Group negotiates directly with the government on water (Brough, 2010). There is the Māori Council, which lodged the National Freshwater and Geothermal Resources Claim (Waitangi Tribunal, 2012).<sup>96</sup> There are iwi organisations as the preferred negotiation partners for ministries and regional and district councils. And finally, there are hapū and whānau, in particular the

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<sup>95</sup> With the benefit of hindsight, the emphasis on ‘speaking’ reflects a tendency in western society to emphasise speaking over listening. The reverse is true in Māori society.

<sup>96</sup> Wai 2358 was lodged in response to the Government’s sale of State Owned Enterprises, in particular energy generators relying on hydro- and geothermal power generation. The purpose of this claim was to establish potential proprietary rights of Māori in freshwater resources and the Crown’s ability to settle Treaty claims over these rights once the assets had been sold. Wai 2358 builds on previous claims relating to Article 2 of the Treaty which granted Māori “...the full, exclusive and undisturbed possession of their properties”. The customary user rights at the time translate into proprietary rights under today’s property regime. Furthermore, a separation of water and lake or riverbeds is a foreign concept to Māori who see rivers as a living entity in their own right, and thus understand them in the unity of the whole, rather separate parts (Waitangi Tribunal, 2012).

The issue of rights to water in the context of power generation go as far back as 1903 when the Hon. Hone Heke objected to the Crown’s appropriation of water for electricity generation (Durie, 1998b).

people who still live, on what was historically and sometimes still is, their land. Whether or not a hapū is deemed to be active is related to whether or not there is an active marae. Māori dynamics are complex as many live in urban areas, and a range of Māori from different iwi and hapū settle in the same area. By the 1990s more than 80% of iwi/hapū members were living in urban areas away from their original lands (Metge, 1995; Tipa & Nelson, 2008).

In the Manawatū Catchment, there are inter-iwi/hapū and intra-iwi/hapū dynamics that need to be understood when engaging with iwi/hapū locally on integrated freshwater management. As one of the non-iwi/hapū participants observed in the midpoint questionnaire, it came as a ‘surprise, how little interaction the iwi groups have had’. Another queried whether ‘the right people represented iwi and hapū in the workshops’ (Integrated Freshwater Solutions Project, 2011a, unpublished). The complexity of iwi/hapū voices is the focus of this section.

### ***7.3.1.1 The Inter-iwi/hapū Perspective – The Voices of Competing Iwi/hapū***

As outlined in Chapter 4, evidence of some inter-iwi/hapū tension was visible as early as February 2010 at the IFS funding application hui in Levin. As the funding application itself stated, one of the unique features of the IFS project was that for the first time rival iwi/hapū in the region had agreed to work together for the benefit of the river (van den Belt & Forgie, 2010, unpublished).

At the time of formulating iwi/hapū actions and identifying an owner for actions in named areas it became apparent that iwi/hapū participants were reluctant to do so in areas with competing Treaty Claims. At the iwi/hapū action planning hui in March 2011, an ‘iwi/hapū’ convention was adopted where specific iwi/hapū could not be named in the task list. This was agreed to avoid creating precedence for the Treaty Settlement process by attributing specific areas of responsibility or ‘quasi ownership’ to specific iwi or hapū. In addition, the MRLF Action Plan (2011) states in a precursor to a description of the sub-catchments:

It is noted that certain comments made by iwi in the following sub-catchment summaries could be interpreted as mana whenua over catchment areas of the river. Whilst this maybe the case, having those comments in the action plan is not necessarily recognition by other iwi of those mana whenua assertions. (p. 10)

The dynamics prompted me to ask questions.<sup>97</sup> Michael Cribb from Ngāti Kauwhata very quickly realised that I had no appreciation at all, of the historic context impacting on current relationships. He urged me to start learning and provided me with Mildon's book "The People and the Land". As outlined in the historic context section for the IFS case study in Chapter 4, this helped me appreciate intertribal rivalries between the original tangata whenua iwi – Rangitāne and Muaūpoko, and Ngāti Raukawa/Ngāti Kauwhata among other affiliates who had migrated to the region in the 1820s.

Without the historic background, the multi-layered reality of Māori society in time and space is inaccessible. The term Māori implies a cohesive population group. In reality, however, Māoridom is subdivided into more than 60 iwi and many more hapū (Ballara, 1998). Iwi are connected through the waka on which their ancestors arrived and hapū comprise several whānau or family groups. Traditionally, as well as in modern times, the hapū sees itself as an autonomous political unit, with a loose and fluid affiliation to the iwi. Hapū and whānau present essential building blocks of Māori society (Harmsworth, 2004; Harmsworth, Warmenhoven, & Pohatu, 2004; Mildon, 2002).

Ballara (1998) speaks of nations and kin groups or clans to make a stronger point about the independence of tribes. Tangata whenua, usually the first or longest standing occupants of an area, base their mana whenua on authority handed down through the ancestors. Traditionally, mana whenua was closely linked with mana rangatira (chiefly authority). It represented a set of customary laws to manage the land linked to a tribal group through whakapapa and territorial connection. Customary land rights of a hapū or iwi denoting their ownership or control over an area of land, continue to be the basis for the Treaty claims process. In its contemporary use, the concept acknowledges the mana whenua of the land itself, i.e. its spirituality, mana, and mauri. It also relates to the political power associated with control over a territory (Wiri, 2013).

Mana whenua rests with tangata whenua, unless it has been obtained by another tribe through take raupatu or take tuku. Take raupatu requires the complete submission or extinction of tangata whenua rights. If tangata whenua manage to keep the fires going (ahi-kā-roa), they retain rights to their land under the principle of ahi kā.<sup>98</sup> Take tuku relies on reciprocity, i.e. the gift does not come for free but requires an exchange of

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<sup>97</sup> Note: Despite the fact that Chapter 4 contains a historical context section providing a brief summary of the tribal history, at the time of the initial workshops, I was not aware of this history. Even after reading the history, its implications only became clear as I experienced the dynamics of interactions beyond the IFS/MRLF workshops.

<sup>98</sup> According to Mead (1997), the principle of Ringa kaha, i.e. occupation by force of arms, can override the principle of ahi kā in cases where tangata whenua were allowed to remain on their ancestral land on sufferance of the conqueror.

some sort that is seen equal to the value of the land. If this reciprocity cannot be sustained, the original owner of the land has a right to claim the land back. When Te Rauparaha gifted land to Te Whatanui from Raukawa, Te Whatanui's mana was seen as greater and his presence on the land validated the gift (Mildon, 2002).

Both Muaūpoko and ROM claim their rights to land in the Manawatū Catchment under the principle of ahi kā, while Ngāti Raukawa and Ngāti Kauwhata claim rights under take raupatu and take tuku. At the time of writing this dissertation, all claims are still subject to the process of Treaty Settlements. Regardless of whom the Treaty Settlement process will recognise as mana whenua, and regardless of whether this will actually result in the return of lands or another form of compensation, it needs to be understood that European title, i.e. property rights to land, does not distinguish mana whenua and related responsibilities such as kaitiakitanga (Smith, S.M., 2007; Forster, 2012).

### ***7.3.1.2 The Intra-iwi/hapū Perspective – The Voice of Iwi or Hapū?***

Intra-iwi/hapū dynamics can potentially create tenuous relationships between hapū who were the traditional political units, and current iwi institutions formed to represent multiple hapū when negotiating with the Crown and other government entities (Mead, 2003; Muru-Lanning, 2010). At the beginning of the workshops it was clear that Rangitāne was split into two different groupings. ROM represented the western side of the catchment through their iwi organisation TMI; the eastern side of the catchment was represented by Te Kāuru.

Later in the process, I realised that not all Rangitāne members on the western side saw themselves represented by ROM/TMI. Members of Ko te Pu Marangatahi ki Manawatu, who are based in Palmerston North, challenge TMI's authority (Scoop, 16 November 2012). This group descends from a number of chiefs who on at least two occasions brokered peace between the various tribes. They also encouraged strategic intermarriage between Rangitāne and Ngāti Raukawa/Ngāti Kauwhata to strengthen the intertribal peacemaking.

Muaūpoko takes an iwi approach, representing their five hapū through the Muaūpoko Tribal Authority. At least one faction (which was not relevant to the Manawatū Action Planning process, but plays a role in the Lake Horowhenua restoration efforts) stands outside the iwi and aligns with Ngāti Raukawa hapū. Looking at history, this alignment can be explained by a historic peace making deal between a Muaūpoko Chief and

Ngāti Raukawa's Chief Te Whatanui around 1830. Not all Muaūpoko at the time were willing to enter such a peace agreement. They stress their independence to this day.

The Muaūpoko example provides another dynamic that is crucial to understand when interacting with iwi/hapū. Diverse tribal institutions such as runanga, marae committees, and trusts that have been set up for different purposes and the need to meet western legal requirements, add to the complexity. For example, the Muaūpoko Tribal Authority has the right to represent all Muaūpoko in Treaty Settlement negotiations. The fortunes of Lake Horowhenua, however, fall under the jurisdiction of the Lake Trustees who represent the 1500 lake owners. Ngāti Raukawa had at least 27 different organisations representing different hapū or sector interests, such as health, education, and the environment, in 2011 (Winiata, 2011).

Furthermore, it is important to understand the fluidity of hapū and alliances versus conflict between different iwi/hapū who have resulting rights at different points in time and place. Iwi/hapū not only settled in defined spaces, but also moved between semi-permanent settlements and food-gathering places in a seasonal rhythm. They moved to new areas in search of better resources or as a result of warfare and intermarriage. Fluidity of relationships continues today (Muru-Lanning, 2010).

The 'Guidelines for Consulting with Tangata Whenua under the RMA' address the potential controversy caused by issues of tangata whenua and mana whenua. They state that: "Tangata whenua in relation to a particular area, means the iwi, or hapu, that holds mana whenua over that area. Mana whenua means customary authority exercised by an iwi or hapu in an identified area" (Ministry for the Environment, 2003, section 6.2). The guidelines also suggest that under tikanga Māori, kaitiakitanga can help identify the appropriate voice. Kaitiaki are in charge of specific resources and should be consulted whenever these resources are concerned (Ministry for the Environment, 2003). While, theoretically, it is for iwi to establish who has mana whenua and the right to attend hui, councils need to be aware of the history and ongoing changes within their iwi/hapū constituency (Ministry for the Environment, 2000; Te Puni Kokiri, 2013; Tipa & Nelson, 2008).

### **7.3.1.3 Who Speaks – Roles and Mana of Iwi/hapū Representatives**

The mana of iwi/hapū comes from the mana of their leaders. Mana is a powerful aspect of Māori life. It "generally refers to the authority, value and worth, status, importance, respect and acknowledgement of things animate and inanimate" (Rewi, 2010, p. 103). Mana originates in the spiritual world and was traditionally inherited from the ancestors



(mana tupuna). In a person, it could be diminished or enhanced depending on a leader's ability to provide for their people. The possibility of enhancing mana tangata or standing through acts of wisdom and generosity served as an incentive for potential leaders to step up (Mead, 2003).

Ballara (1998) points out that in some older texts mana stood for rangatiratanga or sovereignty.<sup>99</sup> As a consequence, she observes: "When Māori demand mana in Aotearoa, they are demanding a share in the power structures and resource distribution of the country" (Ballara, 1998, p. 12). Muru-Lanning (2010) states that Māori claims to rivers are often motivated by a desire to restore and enhance mana in absence of large-scale land ownership.

Royal (2006/2012), in contrast, sees the mana of modern times as an alternative to traditional power in a western context. Mana in this context presents an opportunity to exercise a different kind of authority. Wisdom and a striving for harmony replace exploitative power. The presence of mana in a person manifests itself through the person's ability to be creative, contribute new ideas and knowledge, and enable action in absence of formal authority.

#### Box 7.2 Reflection on Rangatiratanga and Utu Continued

The different perspectives on what constitutes mana in a modern world – power in a western sense, or the ability to influence in absence of official power – might well explain the different sentiments around the questions of funding and involvement in decision making described in Box 7.1. On reflection, there are differing approaches among the four iwi/hapū groups. One might demand the right to be engaged and funded. Another follows a strategy of relationship and mutual respect building in the belief that funding and involvement in decision making will follow.

Traditionally, each whānau was represented by their kaumātua. Hapū were represented by a rangatira, usually the representative of the more senior line. An ariki represented the interests of an iwi. Expert advice was given by specially trained tohunga (holders of privileged knowledge, priests, experts). The hallmarks of a good leader were less about individual power, but rather about the ability to fulfil responsibilities towards the collective. This was demonstrated through the ability to provide food, housing and canoes for whānau and hapū; to facilitate discussions and

<sup>99</sup> Ranginui Walker refers, for example, to the Declaration of National Independence in 1835 in which mana was used to state sovereignty (Walker 1996).



consensus, and to mediate and settle disputes. A leader had to be an able fighter and Strategist; but also be hospitable and possess a sound knowledge of tribal lands and ancestry (Mead, 1997).

No tribal leader could speak on behalf of their people without the consensus of the groups they represented (Ballara, 1998; Mead, 1997; Mildon, 2002). The collective voice of whānau and hapū was the traditional basis for decision making regarding collective lands and responsibilities. These responsibilities could be predetermined by past generations and consequently impact on responsibilities of future generations (Harmsworth, 2005). There is a desire to reclaim the voice of hapū in rural areas, where hapū do not feel adequately represented by iwi institutions (Knox, 2005).

Durie (2003) points out that in today's environment there can be a perceived lack of voice, which is attributed to the socio-economic situation of Māori, lower education, and diminished self-respect. While many of the customary kawa or protocols still hold, nobody should speak on behalf of their iwi/hapū or whānau unless consensus has been reached and a consented mandate has been given. This often requires an iterative and prolonged process of engagement. This became more obvious during the Te Kāuru RMPF signoff process. As a result, often commitments can not be made on the day. Given the many diverse demands on iwi/hapū the need to build more capacity to support leaders is pressing (Harmsworth, 2005).

One last observation – many iwi/hapū members identify with several whakapapa (genealogy) lines. In addition, some might be engaged with several iwi/hapū in different capacities. At times, this can lead to misunderstandings among non-Māori of which ancestral line or role is being given priority on the day. For example, I always thought that Te Kāuru had been represented from an earlier stage in the Leaders' Accord than Te Kāuru appeared to think. It was only by chance that I later made the connection – the person was initially at the Leaders' Forum on invitation of one of the other iwi to which the person was also connected.

### Box 7.3 Reflection – The Risk of Single Representation

Having only one representative per iwi/hapū grouping in the IFS/MRLF workshops put the representative potentially into a vulnerable position as one person cannot possibly represent the views of the iwi/hapū. Sufficient time and opportunity needs to be given to participants for consultation with the wider iwi or hapū. The concession made by IFS to have observers as supporters for the participants was aimed at providing some support and reduce vulnerability in workshops. The compressed action planning time frame and the predominantly voluntary nature of iwi/hapū participation resulted in limited opportunity for wider consultation with the hapū base.

Jenny Mauger also stressed this point in conjunction with councils employing individuals to work with and ultimately represent multiple iwi/hapū. In her words, ‘it means putting people at risk’ (Mauger, pers. comm., 28 June, 2013).

#### **7.3.1.4 The Voice of the River – Te Reo o te Awa**

The voice of the river was first mentioned at the 2011 Kaupapa Day (Schiele, 2011a, unpublished). At the time, the idea seemed to me a distraction, a tangent that did not quite fit the topic. This was despite the discussion in the workshops that the river was a life form in its own right. The words were noted, but did not translate into a river with a voice. The concept of the voice of the river was raised again during the Te Kāuru wānanga. Participants first referred to the voice (te reo o te awa) and then the call of the river (te karanga a te awa). They also stated that the river had to govern their actions (refer to Chapter 6 for more detail). In a different (marae) setting the idea of ‘whanaungatanga ki te awa’, the relationship with the river, became more accessible to me.

It is a reflection of indigenous peoples’ understanding of being related to and responsible for the creatures one uses. Water, as one of these creatures, in turn is responsible for nourishing plants, animals, and people (Groenfeldt, 2013). The interdependencies of humans and natural occurrences can also be observed at the interface between the two. It manifests itself, for example, in mood swings caused by certain weather constellations (for example Canterbury’s Nor’ Wester) and includes aspects of attachment, ethics, aesthetics, and spirituality (Pickels, 2013). Norman

Franke (2011) observes that in the tradition of many cultures, nature sings. However, with the advance of modernity few people are able to understand her tune.<sup>100</sup>

For people such as the wānanga participants, who do not only have an environmental interest to look after a river, but also an obligation based on their relationship with the river, the voice of the river is a reality. This voice expresses itself in different ways, whether as abundance or lack of life in the river, its smell, and look. River people understand the voice of their river as it lives in their stories and is part of their lives.

Ultimately, the mana of Māori and their water bodies is inherently intertwined. A river or lake rich with mahinga kai has mauri and mana. It enhances the mana of its people as they can share the bounty in the tradition of manaakitanga (hospitality). However, if people do not look after their river and it loses its mauri and its capacity to provide, both river and people lose mana (Dick, Stephenson, Kirikiri, Moller, & Turner, 2012; Forster, 2012; 2013). Michael Cribb from Ngāti Kauwhata made this concept 'real' when he explained that members of his hapū are nowadays reluctant to go to the settlement of Foxton. Going there can lead to conflict as they are reminded that they have neglected their responsibility to look after the Ōroua River, which has led to major water quality issues at Te Awahou, the township of Foxton, and the estuary.

The many complex voices of Māori, namely those of **iwi**, **hapū** representatives, and the **river**, highlighted challenges in identifying who needs to be heard and in what context. It appears the river itself needs to provide the unifying voice or call to action for iwi/hapū in their shared responsibility to look after the river. Coincidentally, the Whanganui River was given the status of a Legal Entity (with a voice) as part of the Treat Settlement Process in 2014. For a full copy of the Deed of Settlement refer to <http://www.ots.govt.nz>.

Following the discussion of aspects regarding 'who speaks', the next section addresses aspects of the context in which people listen. It explores the impact of the complexity of the task, followed by the importance of language and underlying worldviews in the process of understanding.

### **7.3.2 Three Challenges to Listening – The Complexity of the Task, Worldviews and Language**

One of the underlying assumptions to this research was that there was a challenge to make the voice of Māori heard. This challenge could rest with Māori in the way they

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<sup>100</sup> "in der Ueberlieferung vieler Kulturen spricht oder singt die Natur. Aber spaetestens seit der Moderne verstehen immer weniger Menschen ihre Weise" (Franke, 2011, p. 82).

expressed themselves and with Pākehā capacity to listen well or not. Feedback from the midpoint and post-workshop questionnaires (see Chapter 4) supported this assumption through comments such as: “Iwi struggle to get their point across, this is either due to the receptiveness of other participants or to capacity of iwi stakeholders” (Integrated Freshwater Solutions Project, 2011a, unpublished) and “struggle to accommodate what iwi/hapū had to say – too much was filtered out” or “iwi/hapū should have been more specific in saying what they do or don’t want” (Integrated Freshwater Solutions Project, 2011b, unpublished). It was also stated that hearing did not necessarily equal listening or understanding, let alone agreeing with the voice.

### ***7.3.2.1 Context of Listening – The Challenge of Complexity***

As briefly outlined in Chapter 2, integrated freshwater management is multifaceted and multidimensional. As a consequence, human relationships and interactions with each other and water are becoming increasingly complex. Kahane (2004) links complexity to dynamic, generative and social drivers. These drivers define the challenge for human interaction and communication. Table 7.4, based on Kahane (2004),<sup>101</sup> provides a summary of the drivers and how they relate to integrated freshwater management. In the context of this chapter and cross-cultural research, the aspect of multiple worldviews shown in the social/high–complexity/chaos intersection is of particular interest.

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<sup>101</sup> Parallels can be drawn between Kahane’s approach and the post-normal science approach (Funtowicz & Ravetz, 1993). Both concepts describe increasing levels of complexity presenting challenges for human interaction and communication in the context of increasing stakes.

**Table 7.3: Drivers of Complexity in Integrated Freshwater Management**

Degree of Complexity	Dynamic	Generative	Social
Low <b>Simple</b> to <b>Complicated</b>	Cause and effect are close in space and time (a water treatment plant breaking down temporarily)	The future is familiar and predictable – the future replays the past – for example seasonal patterns shaping the life in a tribe or traditional village ⇒ Solutions and rules from the past inform future work, such as when to plant or when to fish	People who are part of the problem or situation share a common worldview which translates into common assumptions, values, and objectives
High <b>Complex</b> to <b>Chaotic</b>	Cause and effect are far apart in space and time. They can be cumulative. A multitude of causes can lead to a multitude of effects which can no longer be directly linked due to the high number of variables (such as the cumulative effects of river engineering, waste discharges and sedimentation on rivers)	The future is unpredictable and unfamiliar. The solutions of the past are too limited to the challenges of the future (such as NZ's transition from a tribal to a colonial society; the move from place based resource management to catchment management)	People involved look at things very differently – they might come from different worldviews or cultures (Māori–Pākehā) – but increasingly also different variations of worldviews, for example environmentalists, economists

**Source:** Table adapted based on Kahane (2004, pp. 31/32)

Trans-disciplinary collaborative and participative multi-stakeholder processes have become a way to address situations with a high level of complexity. Different techniques and tools have been developed to facilitate dialogue and shared learning between participants. Increasingly they recognise the need to have the 'whole system' in the room in order to enable shared learning. This is important to create a platform for creativity and innovation at the interface between different disciplines and cultures.

Cross-cultural collaboration takes time, in many instances several years, because one needs to develop relationships and trust in order to engage productively. The time it takes to build relationships is partly dependent on the availability of participants and actual opportunities to engage (Allen et al., 2011; Castleden et al., 2012). The aspects of tools and time will be explored in more detail in Chapter 8.

In addition, however, there is the question whether relationship and trust building based on mutual respect and acceptance of differences may be sufficient to find common ground. There is a recognised need to develop a better understanding of each other's worldviews, how they impact on how participants perceive the world, and how they make choices (Berkes, 2009; Harmsworth, 2005).

#### Box 7.4 On a Personal Note: Building Relationships and 'Verstehen'

My personal experience was that mutual respect opened a door to engage in dialogue. Only a gradual understanding of a different way of looking at the world kept the door open and in turn opened more doors to increase understanding through the process of 'verstehen'. Most relationship building happened outside the conference room setting, on marae, during wānanga, and while on hīkoi. Relationship building is a process that cannot be forced into an artificial time constraint. It relies on the readiness of those involved to take the next step.

Wilhelm von Humboldt (1767–1835) is credited with coining the term 'worldview'. However, his terminology differentiated between 'Weltansicht' the overall worldview of a culture and 'Weltanschauung', a sub-group's or individual's interpretation or perception of the world. The English language does not distinguish between the two. Yet, the two levels of worldview are implicitly contained in the use of the word 'worldview' (Underhill, 2009).<sup>102</sup>

The concept of worldviews is the topic of the next section. It starts with a definition of worldviews followed by summarised examples. The concept distinguishes between traditional and emerging modern Māori worldviews. It connects aspects of the traditional Māori worldview with emerging changes in the Western worldview.

#### **7.3.2.2 The Challenge of Listening in the Context of Multiple Worldviews**

It is not the purpose of this dissertation to provide a comprehensive comparison of different worldviews. However, as Molenaar (2006) points out, "modernity does not easily recognise other worldviews" (p. 132).<sup>103</sup> It is therefore necessary to raise awareness how different worldviews impact on what is heard and understood. The

<sup>102</sup> Note's approach of making a distinction between first and second order ordering categories in the construction of a worldview helps distinguish between the more generic and the more particular aspects of a worldview (Note, 2007).

<sup>103</sup> Te Maire Tau (2002/2012) questions whether Māori had to think consciously about their worldview and ways of living before the arrival of Europeans. Years of living in a 'closed' society would have made people one with their environment, with little or no reason to challenge the status quo.

discussion happens in the context of this cross-cultural case study in the field of Ecological Economics. It starts with a selection of definitions of what constitutes a worldview and how worldviews reflect the thinking and behaviour of a society. A high level categorisation of worldviews is followed by an understanding of Māori worldviews, common roots, and underlying value systems from my perspective and level of 'Verstehen'.

This understanding does not claim to be complete or representative of the worldviews of all Māori as a collective or as individuals. Linda Tuhiwai Smith (2012) notes the difficulties in representing a Māori worldview, particularly as Māori worldviews have been impacted on by Western thinking since early contact with settlers.<sup>104</sup> Coming from a western background it is not possible to get a full appreciation or insider understanding of the Māori worldview and its many variations. One can only gradually enhance one's 'Verstehen'.

#### 7.3.2.2.1 *Definition of Worldview*

Starting at a global or generic level, the Centre Leo Apostel in Belgium, which concerns itself with the development of a global worldview, provides the following definition:

... a world view is a system of co-ordinates or a frame of reference in which everything presented to us by our diverse experiences can be placed. It is a symbolic system of representation that allows us to integrate everything we know about the world and ourselves into a global picture, one that illuminates reality as it is presented to us within a certain culture. (Aerts et al., 1994/2007, p. 9)

Worldviews are a collective effort as they contain observations and experiences of generations which contribute to the survival of groups of people or cultures. Worldviews describe the universe and how everything within it is connected and related (Suzuki et al., 2007). Reverend Māori Marsden and James Henare (1992) provide the following description:

Cultures pattern perception of reality into conceptualisations of what they perceive reality to be; of what is to be regarded as actual, probable, possible or impossible....The world view is the central systematisation of conceptions of reality to which members of its culture assent and from which stems their value

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<sup>104</sup> Ngata called it a 'cultural blitz' delivered by missionaries who demanded the ceasing of old customs. Within 100 years the traditional worldview of Māori was reduced to fragments (Ngata, undated).



system. The worldview lies at the very heart of the culture, touching, interacting with and strongly influencing every aspect of the culture. (p. 3)

Worldviews are social constructs, implicitly embedded in a culture with individual interpretations as people make sense of their perception of the world. The awareness of the existence of different worldviews is a prerequisite to understanding diversity across cultures and within cultures. While groups are looking for coherence on one hand in the formulation of their views, individuals within the group are unlikely to share the exact same view. Worldviews emerge over time, shaped by events within and outside the group (Royal, 2002).

Despite the similarities in definitions of what constitutes a worldview, the actual worldviews themselves are quite distinctively different. Traditionally, the interaction between individuals, their kinship group or society was anchored in some form of cosmological or genealogical narrative that set the rules for relating with each other and nature and all things animate and inanimate within culture.

#### 7.3.2.2.2 *Worldviews and How They Reflect the World Humans Inhabit*

Royal (2002) distinguishes between three major categories of worldviews that define the relationship between humankind, nature, and creation. In the indigenous worldview(s) the divine is in the world, in particular in the natural world – represented by the deities of the forest, the sea, and all other natural entities. In the Eastern worldview(s), the divine resides within (the human) and needs to be accessed through meditation. In the Western worldview(s), (god) the creator stands outside the world humans inhabit. With modernity, man has claimed a position as master over nature rather than a place within nature. Linda Tuhiwai Smith (2012) attributes the beginnings of the split between humans and the natural world to the old Greeks. In the separation between humans and nature lie the roots of the understanding of nature as a mechanism rather than an organism.

Technology is one manifestation of humankind's supposed superiority. The advance of western technology started between 800 and 1000 AD with the use of water power for grain milling. It enabled the process of colonisation and western world dominance by the 15<sup>th</sup> Century. The Age of Enlightenment and the development of modern science spearheaded by the likes of Isaac Newton and Francis Bacon accelerated the alienation of western man from nature. Technology substituted nature, which became a mere resource while the human race developed into a 'superspecies' (White, 1967; Suzuki et al., 2007). "A world that is raw material, resources, dead matter, to be made

into things, has nothing sacred in it. So we cut down the sacred grove, lay it waste, and declare it does not matter, because it is only matter" (Suzuki et al., 2007, p. 290). The modern western worldview is one of progress and development and it is intrinsically linked with the emergence of capitalism and market economies (Molenaar, 2006). "...land is an input of production, property rights are individual and transferrable, natural resources are commodities and humans are basically separate from the natural environment" (Kingi, 2002, p. 4).

In contrast to human dominance over nature, indigenous peoples' interpretation of their place in nature can be described as "We *are* the air, we *are* the water, we *are* the earth, we *are* the sun and this is how we are interconnected with everything else...There is no environment 'out there' that is separate from us" (Suzuki, et al., 2007: 17). Just as land is not a profit-making commodity, trees, plants, and animals are not mere natural resources. Land has sacred meaning and is embedded in social interactions. It is a fundamental part of people's identity and way of life. Indigenous people have historically learnt to replicate ecological dynamics and have developed cultural practices aimed at maintaining a balance between human beings and the constraints of their environment (Davis, S.H., 1993).

Aspects of indigenous understanding and values as expressed by Davis are reflected in the cultural values expressed during the IFS/MRLF processes, for example the understanding of the river as a life form in its own right, the interconnectedness of all things and beings and the need for reciprocity. Yet, at the same time, there is evidence that not all Māori and Māori institutions engaged in the mainstream economy act in accordance with an indigenous worldview (Forster, 2013; O'Regan, 1984; Smith, S.M., 2007; Stevens, 2013).

Kingi (2002) observes that Māori as an ethnic group do not have one worldview of the environment. Like individuals in other societies, Māori develop their own variants of worldview shaped by their experiences and environment, loss of language and customs. In addition, the alienation from land has turned the traditional worldview into an abstract concept, unless people still live in communities based on traditional values (Kingi, 2002). Insights from the literature showed that my original assumption of one common Māori worldview was not warranted. The following is an attempt to describe the evolution of Māori worldviews over time.

### 7.3.2.2.3 *An Attempt to Understand the Evolution of Māori Worldview(s)*

In general terms, three distinctive eras that shaped distinctive worldviews with tribal variations, can be described. The first era followed migration from Polynesia and led to the adaptation of a Polynesian worldview to life in the new environment of New Zealand. The second phase followed contact with European settlers, the adoption of Christianity and a response to the loss of lands and a customary way of living. The third phase sees the emerging of a new, modern worldview (Royal, 2007).

Since the roots of modern worldviews reach back to the traditional worldview, a basic understanding of key concepts is required. Schwimmer attributes to Māori a capacity to probe into the darkness before life began, resulting in profound understandings of the world (Schwimmer, 1966/1974). Reverend Māori Marsden and James Henare (1992) describe three distinct but interconnected worlds based on the idea of a dynamic universe with continuous or perpetual creation processes. The three worlds are also represented in the three kete (baskets) of knowledge.

Te Korekore is the world of potential, the realm between being and non-being. This is the realm of Io or the creator of everything. The kete related to this world is Te Ao Tua-Atea. Te Po is the world of becoming, the origin of the space/time continuum. It is described as the real world where all life takes its origin. It contains the energy, the mauri and the roots of all beings animate and inanimate. The knowledge about this world is contained in the kete Tua-Uri. Te Ao Marama is the natural world of being, the world of sense perception. The kete Te Aro nui holds the knowledge to this world, and a world of words and symbols (Marsden & Henare, 1992).

There is a common theme among tribal groups that Te Ao Marama came into being when Tāne separated his parents, Ranginui, the Sky father, and Papatūānuku, the Earth mother, to create space and bring light into the darkness in which he and his brothers lived. Tāne and his brothers represent different natural occurrences and are seen as their kaitiaki or guardians: Tāne-Mahuta represents the forest and the birds, Tangaroa the sea, Rongomatane and Haumiatiketike represent wild and domesticated plants respectively, Tawhirimatea the winds, and Tuamtauenga represents war. Tāne was also responsible for the creation of the first human beings.

The Kai Tahu creation narrative goes one step further, describing the ancestry of Ranginui, the Sky father: “Mākū mated with Mahoranuiātea, another form of water, and

begat Raki.<sup>105</sup> Water therefore, is the promoter of all life and represents the lifeblood of the environment"<sup>106</sup> (Garven, Nepia, & Ashwell, 1997, p. 36). This understanding lives on in the relationship between Māori who still live on and off the land and their relationship with water bodies as expressed in the Te Kāuru wānanga.

This traditional worldview was severely impacted by contact with European settlers, and in particular missionaries, who offered an alternative spiritual basis for viewing the world. This was to varying degrees adopted by some and rejected by others. Over time, original worldview and related knowledge were fragmented and adapted to a changing world (Royal, 2007). Today's variations of worldview can be seen as a reaction to colonisation and a sense of loss caused by a gradual marginalisation of Māori in society. This in turn resulted in the revitalisation movement of Māori culture and values in the 1970s and '80s. What Royal describes as a 'claims psychology' captures some people in a closed or preserved set of traditional views and values in order to prove the rightfulness of Treaty claims. Others have moved towards a modern or postmodern view, open to debate and adaptation. Royal sees the creative potential of Māori to create a new, shared worldview that reflects a better relationship with the natural world, which can move across boundary styles and knowledge and draws on a revitalisation of traditional, indigenous knowledge. Such a worldview would be available to all humans, not just indigenous peoples (Royal, 2007).

The changing of worldviews over time, based on different influences, applies equally to western worldviews. The following section loops back to the western worldview and touches on some commonalities with Māori worldviews of different eras.

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<sup>105</sup> Raki or Rakinui is the Ngāi Tahu name for Ranginui.

<sup>106</sup> Ivan Illich (1986) illustrates a close analogy between Māori and Greek mythology:

Mnemosyne is one of the Titans. She appeared when the sky still rested in the arms of the earth, when Uranus shared the bed with broad hipped Gaia, an eon before the Olympian gods were born. The Hermes calls her the mother of muses....

When the god Hermes plays to the song of the Muses, its sound leads both poets and gods to Mnemosyne's wellspring of remembrance. Hermes is both messenger and guide of the gods. Even the immortals must draw on the waters of his titanic mother if they want to remember. The appearance of Mnemosyne among the Titans is crucial for our history of water; it tells of water before there were gods. Being placed among the Titans, a cosmic element – water that washes – became the source of remembrance, the wellspring of culture, and acquired the features of woman.

However, the first woman of oral tradition is forgotten when the oral transmission of epics ceases. The classical poet of Greece, no longer has need for recollections from a 'beyond'. His sources are frozen into texts. He follows the lines of a written text; the epic river that feeds its own source is remembered no more. Not one Greek City has preserved an altar dedicated to Mnemosyne. Her name becomes a technical term for 'memory', now imagined as a page; the stuff of memory turns from water into a shard. Written language, which has fixed words on clay tables, acquires more authority than the re-evocation of fluid, living speech (Illich, 1986).

#### 7.3.2.2.4 *Closing the Loop Back to Western Worldviews*

One of the key differences attributed to a western worldview is the dominance of humans over nature. Another one is the perception of nature as ‘matter’ and devoid of a spiritual dimension. Yet, one can observe that at all times there have been counter-movements challenging humans’ dominance over nature. The philosophy of a human within nature and a holistic approach to nature remained, for example, embedded in the teachings of Saint Francis of Assisi. Romanticism was a reaction to Enlightenment and included leading thinkers such as Thoreau, Friedrich Schlegel, Novalis,<sup>107</sup> and Goethe.

Goethe (1749–1832) saw science as a dual path of spiritual development and accumulation of knowledge about the physical world<sup>108</sup> (Max-Neef, 2005). In ‘Der Zauberlehrling,’<sup>109</sup> Goethe made a poetic prediction of what lies in store for humanity as it unleashes the powers it recognises and cherishes but has no means to control. Alexander von Humboldt (1769–1859) conducted his analytical research in the context of the whole. He described the cosmos as “one great world animated by the breath of life” (Humboldt, A. in Worster, 1994, p. 135). In the 19<sup>th</sup> Century Ernst Haeckel coined the term ‘Oecology’ in an attempt to reunite fragmenting disciplines. John Muir founded the Sierra Club, one of the world’s earliest and largest grassroots environmental organizations in 1892 (Worster, 1994).

Following history into the 20<sup>th</sup> century, a new understanding of the world, more akin to the worldview described by Reverend Māori Marsden is emerging.<sup>110</sup> The work of the new physicists has scientifically shown that there is more than the one mechanistic reality or world perceived by modern science. Quantum physics demonstrated the existence of particles in two contradictory states as matter or wave. Thus the Universe

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<sup>107</sup> Carl Mika’s work refers to the philosophies of Novalis (Friedrich von Hardenberg 1772–1801), a Romantic philosopher and poet. Mika draws parallels between Novalis’ musings on the colonisation of nature and the colonisation of Māori cultural concepts through western science. Both are stripped of their spirituality and deeper meaning. He uses the example of the reduction of whakapapa to a mere human genealogy table because western scientists cannot accept the possibility of something much larger, a genealogy of the cosmos reaching back into the time before human consciousness (Mika, 2011).

<sup>108</sup> According to Asher (1993) a connection exists between the world of Māori and Goethe. This was based on the German Georg Forster’s records of Captain Cook’s second journey around the world (1772 – 1775) which included two visits to New Zealand. Following the publication of Forster Book ‘Reise um die Welt’ (Travels around the World) in 1777, Goethe and Forster met on several occasions and kept in contact until Forster’s death (Asher, 1993).

<sup>109</sup> Der Zauberlehrling – The Sorcerer’s Apprentice describes how the sorcerer’s apprentice uses the master’s broom without permission and creates an (for him) unstoppable flood (Goethe, 1798).

<sup>110</sup> Other indigenous cultures have also incorporated insights akin to that of the new physicists in their worldviews (Cajete, 1994).

can be understood as an “Undivided Wholeness in Flowing Movement” (Bohm in Kelly, 1992, p. 29). This provides a theory of an implicate order, independent of space and time which compliments an explicate order of materialisations in time and space.<sup>111</sup> Kelly (1992) links this theory with three principles provided by Morin. A hologrammatic principle ensures that the parts are contained in the whole and the whole in the parts. A dialogical principle shows the complementary, concurrent and antagonistic nature of the parts, where they complement each other but also retain their autonomy. The third principle of recursivity establishes the connection between an end and a new beginning, as the end of something enables the beginning of something new.

Nicolescu (2006) connects the new understanding created by the new physicists to the concept of relativity, in the sense of ‘related to’. Different realities are characterised through discontinuity from one level to the other and different sets of laws. The different levels of reality correspond to different levels of perception. Contradictions, or the moving from one level of reality to another are explained with the help of the included middle. The included middle provides the means for integration, – ‘and’. This contrasts with the ‘either/or’, the exclusivity principle of classical science. The included middle, thus also re-establishes the connection between subject and object (Max-Neef 2005; Nicolescu, 2006).

Cilliers and Nicolescu (2012) describe the existence of a ‘hidden third’ that facilitates interaction between all there is in the Universe as a Whole – everything is in perpetual motion and energetically structuring on different levels of reality and between different systems. The hidden third lies at the source of the continuing perpetual of the processes. This resembles the Māori concept of *mauri*. The existence of two worlds was first acknowledged by the physicist Werner Heisenberg (1901-1976) who also recognised a third world, that of religions, philosophers, and artists (Heisenberg, 1942 in Max-Neef, 2005, p. 11). By adding the third world, Heisenberg closes the loop to the humanities, philosophy, religion, and the arts, which in German science tradition were an integral part of the sciences – that is, the complement to natural sciences.

As the Reverend Māori Marsden (1975; 2003) points out, “The three-world view of the New Physicists, with its idea of a real world behind the world of sense-perception, consisting of a series of processes and complex patterns of energy, coincides with the Maori view” (p. 95). He later adds in the same writing that, while the new physicists do

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<sup>111</sup> In a way this mirrors Humboldt’s distinction between ‘Weltansicht’ and ‘Weltanschauung’. ‘Weltansicht’ is the implicate order that enables the explicate formulation of ‘Weltanschauung’.



not explicitly declare the existence of a world or worlds of the 'spirit', they don't deny its possibility either.

Around the same time, a school of ecology emerged that operated in a paradigm of economic productivity and a science of physico-energy reactions replacing the idea of the existence of a life principle. According to Worster (1994), Arthur Tansley coined the term 'ecosystem' in 1935.<sup>112</sup> This School of Ecology gradually came to view nature as a collection of systems responding to cause and effect. Ecosystems consist of material exchanges of energy and chemical substances such as water, phosphorus, and nitrogen which constitute food for the system (Worster, 1994, pp. 301–304).

Again, a counter-movement has been addressing humans' predominant relationship with their environment, social justice, and indigenous rights (Hawken, 2007). Rachel Carson's *Silent Spring* (1962/1994) can be seen as one of the first publications raising awareness of the potential risks and unintended consequences in humans' approach to controlling nature. Arne Naess is regarded as one of the fathers of Deep Ecology, while James Lovelock developed and promoted the Gaia theory.

As described in Chapter 2, Ecological Economics acknowledges humans and human economy to be subsets of the greater earth system. It has adopted the concept of ecosystems and ecosystems services, and sees nature governed by the laws of thermodynamics. Ecological Economics aims at achieving a degree of balance between humans and nature through adaptive management and trade-offs between ecological, economic, social and cultural values in the face of limits to growth.

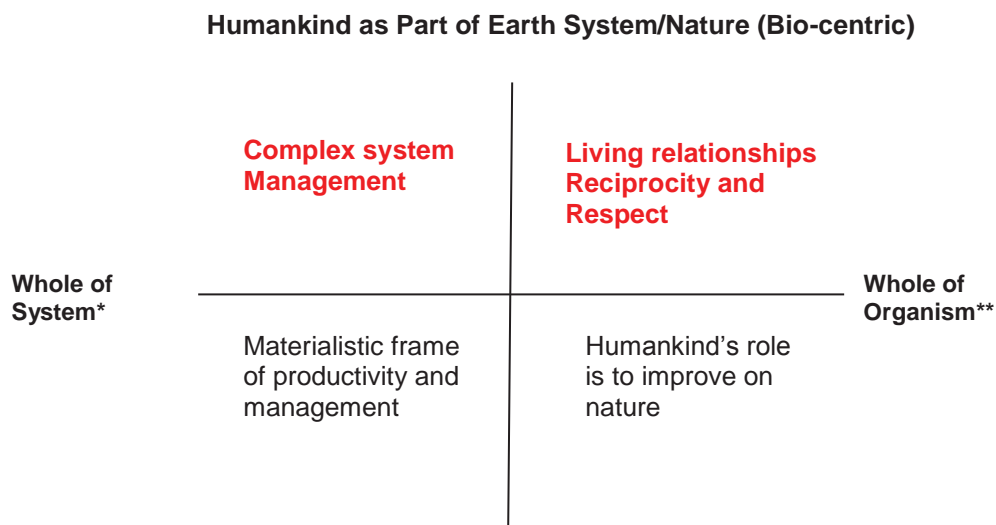
Figure 7.9 is my attempt to provide a simplified overview, a cross-section of 'Weltansichten' that are likely – subconsciously or consciously to shape worldviews on human interaction with nature. It is an attempt to share a level of 'Verstehen' at this point. It reveals the tension of the understanding of humankind as part of nature versus humankind dominant over nature on one axis, and the tension between a systematic holistic or organic holistic understanding of the world on the other axis. It does not address the tension between a reductionist and holistic approach. In the context of

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<sup>112</sup> In his paper "The Use and Abuse of Vegetational Concepts and Terms", Tansley opposes the idea of nature as one holistic and complex organism. Instead, he suggests thinking about nature as a "whole system (in the sense of physics)". This system is made up of organisms and inorganic matter, i.e. the environment or habitat. The whole system can be seen as a collection of what he proposes to call ecosystems as one category of the many physical systems ranging from the Universe to the atom (Tansley, 1935, p. 299). This view suggests that inorganic matter cannot be part of organisms, whereas in indigenous cultures, both are part of the whole and imbued with the life principle.



Ecological Economics and Māori both can be said to take a holistic approach in their understanding of the world.



**Humankind as Dominator of Nature (Anthropocentric)**

\* Characterised by physico-electro-chemical reactions and a complex pattern of cause and effect

\*\* Characterised by life force (mauri), spirituality and a web of relationships

**Figure 7.9: 'Weltansichten' Quadrant<sup>113</sup>**

**Source:** Author based on Literature Review

These 'Weltansichten' multiply into a myriad of 'Weltanschauungen', or worldviews, in their interplay with religion, ideologies, values, politics, and institutions. The worldview continuum used in the framework for voice, therefore, needs to be understood as a multi-dimensional rather than one-dimensional continuum. The focus in the context of the 'voice of Māori' in integrated freshwater management should be on the understanding of humankind's relationship with nature.

Where speaker and listener do not share the same worldview and value systems, they will necessarily struggle to understand each other, as they approach freshwater from different premises. This challenge exists to some degree for people coming from different subgroups of the same culture. The challenge increases for people engaged in cross-cultural dialogue involving fundamentally different worldviews and languages. This aspect will be explored next.

<sup>113</sup> Another possible approach to describe the tension between western and Māori worldviews is the one used by Cheung. She compares a scientific worldview with a Māori worldview by looking at the origin of the universe, the origin of species, and views on spirituality, values and behaviours. In her model, the two key differences are the absence of spirituality in the scientific worldview and the distinction between object and subject in science (Cheung, 2008).

### 7.3.2.2.5 *Context of Listening – The Challenge of Language*

The IFS/MRLF workshops faced several challenges in regards to language. One was the challenge of hearing and understating western science. HRC's science team had to translate their science into a language accessible to participants not familiar with the terminology. IFS endeavoured to make the concept of ecosystems services and sustainable development accessible to participants. Iwi/hapū made an effort to translate te reo and concepts of Māori culture and worldview in order to influence the thinking and understanding of other participants. There is an inherent risk that meaning is lost in translation as the speaker tries to make isolated concepts of his/her culture accessible in the language of a different culture. It is also risky to a counterpart who is trying to match what they hear with what they expect to hear or know based on their own worldview (David, 2010; Roberts, Minhinick, Wihongi & Kirkwood, 1995; Royal, 2002).

Wittgenstein (1922/1961) states: "Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt" (The limits of my language mean the limits of my world) (p. 4). Bertrand Russell (1922/1961) explains that Wittgenstein's fundamental thesis is that it is "impossible to say anything about the world as a whole, and that whatever can be said has to be about bounded portions of the world" (p. xvii). These bounded portions of the world are anchored in individual and collective perceptions of the world.

Wilhelm von Humboldt saw language reflecting the worldview (Weltansicht) of a people. He understood both as processes that change over time in the context of a changing world. Thus language can provide insights into worldviews in different phases of a culture's evolution (Underhill, 2009). Anthropologist Wade Davis (2004) shares this view by describing language as the living expression of a culture, part of what he calls the *ethnosphere*, or the cultural web of life: "A language is not merely a body of vocabulary or a set of grammatical rules. It is a flash of the human spirit, the means by which the soul of a particular culture reaches into the material world" (p. 215).

As an example, Tim Flannery (2010) describes living beings at their most elemental level to be processes: "A dead creature is in every respect identical to a live one, except that the electrochemical processes that motivate it have ceased" (p. 40). In contrast, Cajete (1994) observes: "...the world is alive, conscious and flowing with a perennial energy" (p. 24). The mystic structures of indigenous peoples' narratives can be seen as an extension to science as they give unique cultural explanation of observable phenomena. Like science they explain the world – science is story, shaped by underlying worldviews and language (Cajete, 1994; Royal, 2007).

Are the same things being described? It appears that on one level the answer is yes – there is a convergence of understanding that creation is an ongoing process, that there are multiple realities, and that some form or forms of energy give life. What Tim Flannery describes as an electrochemical process relying on the sun's energy can also be described as *mauri ora*, the life principle, an energy, that can wax and wane and is unique to every person (Love, 2004; Pere, 1994; 1995).

Wade Davis (2004) points out that our worlds do not exist in an absolute sense, but are constructs of thought processes and social structures. A culture that is based on relationships will have a different language and interaction with nature than a culture that is based on abstract electrochemical or physico-chemical reactions.

In *The World Until Yesterday*, Diamond (2012) discusses the link between languages and the survival of cultures. He sees language as a vehicle to express unique ways of thinking and relating different worldviews. This view is reflected in the Māori language claim lodged in the 1980s. It was not solely about the protection of a language per se but about the potential loss of an entire worldview and way of experiencing the world (Royal, 2007). Leroy Little Bear (2000) sees the way a society thinks reflected in its language. Indigenous languages are verb-rich, describing processes. The absence of a verbal tense in the Māori language indicates that time is a continuous stream, rather than an absolute measure (Marsden, 1975).

People speaking multiple languages not only have the advantage of a richer vocabulary, they can also access distinctively different 'worlds' and ways of living as they switch between languages (Diamond, 2012). This diversity opens up opportunities for innovation at the interface. Orr (2004) describes the capacity of humans to change language over time and thus to change meaning. Changing words can change attitudes and understanding. Language has the power to help see the world in a different way. The process of abstraction can be reversed, for example from resources to nature, from human resources to people (Orr, 2004).

Peterson, Russell, West and Brosius (2010), who engage in conservation work, emphasise the need to 'hear local voices speak' from the vantage point of the culture. They also point out the risk of local narrative being absorbed into statistics and arguments to support the theories of researchers, thus losing the meaning embodied in the narratives by the people who conveyed them in the first place (Peterson et al., 2010; Metge 2001). Unless one is prepared to accept the possibility of a world beyond the one that one understands, and can express with one's language, insights from

another world might get discarded. This in turn will limit people to what they already know. As Kahane (2004) states: “The root of not listening is knowing. If I already know the truth, why do I need to listen to you?” (p. 47).

A final thought – cultural differences in interaction and communication can create misunderstandings in other ways. One example is the non-content level of the communication process (Metge & Kinloch, 1984). Formal welcomes and introductions are paramount in the Māori culture, but of less importance in a western culture. While Māori tend to put more emphasis on listening, not only with their ears, but also through observing body language, westerners tend to be more verbose. Body language is not always the same. For example, it is impolite not to seek eye contact in a western world. However, doing so can be perceived as a challenge by Māori (Metge & Kinloch, 1984).

### **7.3.3 Summary of Insights on ‘What Gives Voice in the Process’**

This section of the chapter explored ‘what gives voice’. It showed how history, together with an understanding of modern organisation of iwi/hapū, can help identify who is speaking from what basis of authority. With tensions around still-outstanding Treaty settlements, this can at times threaten pan-iwi/hapū collaboration. The ‘voice’ or ‘call’ of the river has the potential to provide a ‘proxy’ for the voices of competing iwi and hapū, and should be understood as a ‘literal’ voice. Listening to the river requires an understanding of what a healthy river looks or smells like and what kind of fauna and flora should be associated with it. The voice of the river was consequently integrated into the framework to reflect relationships between the river and people.

The challenge of listening and understanding in cross-cultural collaborations was explored by looking at the complexity of the task at hand. Using Kahane’s model of drivers of complexity, there is a need to consider and understand different worldviews in a context of complex challenges, such as integrated freshwater management. The discussion of worldviews established a connection between traditional understandings of Māori, the existence of multiple worlds and emerging insights from modern science. In this area of inquiry, a spiritual realm is a possibility for some scientists.

The discussion on worldviews and language has supported the relevance of a worldview continuum in the framework for voice. It is apparent that there is not one unifying Māori or western worldview. This enforces a need to understand the range of worldviews represented in collaborations so that contributions can be seen in a context of cultural values. The discussion has also shown that the worldview continuum needs to be understood as a multi-dimensional rather than two-dimensional construct.

Language is an indicator of underlying worldviews, and vehicle to create a new understanding of the world.

**Box 7.5 On a Personal Note: Making the Implicit Explicit – a Reflection on Worldview**

Coincidentally, one of the earlier drafts of the IFS Pre workshop Questionnaire contained a question about worldviews. At the time, the language was not intuitive to me. In accordance with Molenaar's (2006) observation that 'most people don't reflect on their worldview' (p. 132), I had never seen the need to do so explicitly. On reflection, however, I had always implicitly accepted that people in my (international) networks had different values and approaches. Quite often, the companies I worked for, in particular Hewlett Packard, expected their staff to live a corporate culture (for example the HP Way) that overrode the cultures of staff. Everybody consented (via the employment contract and induction process) to adopt this culture for work purposes, thus minimising confusion.

Ultimately, the word 'worldview' was removed altogether from the questionnaire. The word 'world' in the question whether the group might reach consensus in 'how the world works' was replaced by the word 'system' – a word that matched my corporate vocabulary of the time.

The issue of sharing worldviews and looking for commonalities in worldviews also surfaced in an earlier Mediated Modelling case study conducted by van den Belt (2004) in the Wisconsin Upper Fox Basin. Questions relating to worldview were dropped due to participants' unease with the questions. However, participants in yet another case study in Portugal were comfortable to engage with the concept (van den Belt, 2004).

Following the discussion of complexity, worldviews and language, the next section links to the values discussed earlier in this chapter.

#### **7.3.4 Discussion of Values Identified During the IFS/MRLF Processes Continued**

Four key concepts identified during the IFS/MRLF workshops and presented at the beginning of this chapter – the relationship of Māori to water, kaitiakitanga, tino rangatiratanga, and whanaungatanga – are described in more detail. They have particular relevance to integrated freshwater management. Enhanced understanding of these precepts could be seen as a prerequisite for non-Māori to listen to the voice of Māori when engaging in freshwater management discussions with Māori. The values

discussion completes the triangulation process signalled at the beginning of this chapter.

#### **7.3.4.1 Māori and the Relationship with Freshwater**

The holistic approach to water in traditional Māori culture recognises water's life-giving capacity in a way that goes beyond the predominantly utilitarian 'resource' understanding applied in western countries. The description of waterways as the blood vessels running through Papatūānuku, who supports life of all there is on earth, combined with the understanding that water runs through everything including the human body is powerful symbolism. It captures the imagination and respect of people (Te Rūnanga o Ngāi Tahu, 1999; Waitangi Tribunal, 2011; 2012). In keeping with other indigenous cultures, water is ultimately seen to be a life form in its own right (Groenfeldt, 2013).

The Indigenous Peoples' Water Declaration (Kyoto, 2003) shows that the sentiment of Māori is shared widely amongst other indigenous peoples:

1. *We, the Indigenous Peoples from all parts of the world assembled here, reaffirm our relationship to Mother Earth and responsibility to future generations to raise our voices in solidarity to speak for the protection of water. We were placed in a sacred manner on this earth, and in our own sacred and traditional lands and territories to care for all the creation and to care for water.*
2. *We recognize, honor and respect water as sacred and sustains all life. Our traditional knowledge, laws and ways of life teach us to be responsible in caring for this sacred gift that connects all life.*
3. *Our relationship with our lands, territories and water, is the fundamental physical, cultural and spiritual basis for our existence. This relationship to our Mother Earth requires us to conserve our freshwaters and oceans for the survival of present and future generations. We assert our role as caretakers with rights and responsibilities to defend and ensure the protection, availability and purity of water. We stand united to follow and implement our knowledge and traditional laws and exercise our right of self-determination to preserve water, and to preserve life.*

The importance given to the sacred aspect of water, however, is only one aspect. Māori and other indigenous peoples also have a utilitarian relationship with water (Hook & Raumati, 2011; Stevens, M., 2013). The Wai 2358 Report stipulates that going back in time one needs to acknowledge the role of a water-based versus a land-based economy. The 'possession' of, control, and guardianship over water bodies was the

difference between being able or unable to feed one's own tribe and display hospitality to others. Food was traded or exchanged, for example tuna (eel) for mutton birds (shearwaters). This implies an underlying concept of trade or commerce and barter. (Waitangi Tribunal, 2012).

Water was the basis of the economy and essential in every aspect of life. Pa tuna were elaborate weir constructions for systematic eeling on a large scale (McDowall, 2011). O'Regan describes early Māori as 'sophisticated resource strippers'. Only after resources became scarce in the light of growing population, did an ethic of conservation evolve. This is reflected in today's remaining efforts of exercising kaitiakitanga. This ethic did not stop Māori from undertaking elaborate works of hydro-engineering. They were equally happy to venture into new commercial arrangements such as charging for ferrying services when early settlers arrived. What remained consistent is the clear distinction between some waters that are so sacred they should never be touched for anything but spiritual interaction, and other waters that can be used for more mundane purposes (O'Regan, 1984).

As mentioned earlier, not all tribes share the exact same traditions when it comes to water use and waste management. There is evidence that some tribes used water for waste disposal. This wastewater was kept strictly separate from water being used for food gathering (Garven et al., 1997; Morgan, 2006; Pauling & Ataria, 2010). One modern take on the relationship with water is reflected in the Te Rūnanga o Ngāi Tahu Freshwater Policy (1999), which states:

Water is a commodity that is subject to competition. An understanding of the significance and value of water to Ngāi Tahu and other stakeholders is necessary to change the existing behaviour from one that prioritises consumptive uses and permits inefficient use towards one that recognises and provides for cultural and ecological values as priorities. (p. 8)

#### **7.3.4.2 Kaitiakitanga – Rangatiratanga – Whanaungatanga**

Everything is connected with everything – picking one set of values over another set quickly shows that the picture is incomplete. The following is an attempt to show the connections between kaitiakitanga, rangatiratanga, and whanaungatanga as they pertain to freshwater management. Panelli and Tipa (2007) point out that before European settlement rangatiratanga, kaitiakitanga, and mana were almost synonymous as they represented a way of living and were inherently interdependent. Each whānau had cultivating rights, rights to fish, and specified places and trees from which they



could harvest. These rights were user rights only, rather than property rights in the modern sense. They were allocated by the elders (Schwimmer, 1966/1974). The fair and just allocation of rights, together with the guidance of what could be harvested, defined the interaction between rangatiratanga, kaitiakitanga, and mana.

The term tino rangatiratanga is often equated with self-determination but is also used to mean moving away from dependence and being able to determine one's own future (Harmsworth et al., 2004, p. 2). Huhana Smith (2011) connects tino rangatiratanga to the principle of kaitiakitanga:

In the journey towards tino rangatiratanga, kaitiakitanga is the principle that applies the connectedness of whakapapa (genealogy) and the energy of mana (prestige and authority) to the places and situations where Māori live and draw their resources from...in a very basic way, kaitiakitanga is how people sustain their lives and maintain their welfare and security. (p.146)

Kaitiakitanga and rangatiratanga are incorporated into a range of modern-day collaborative initiatives on integrated freshwater management, such as the Canterbury Water Management Strategy (Lennox, Proctor, & Russell, 2011), the legally binding Waikato River co-management (Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010), or the Motueka Integrated Catchment Management (Allen et al., 2011; Harmsworth, 2004).

In the RMA, kaitiakitanga is defined as “the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship” (Ministry for the Environment, 2009, p. 1). There are no specific examples of what constitutes kaitiakitanga under the Act. It is just one of several aspects to be considered by a planner or policy maker. In the Māori world, however, it represents a resource management system in its own right. It has enforceable rules and regulations (Tomas, 1994). Kaitiakitanga can be understood as a management plan that considers the lifecycles of resources and their need to reproduce in order to provide sustenance on an ongoing basis (Tau, R., 1992).

The aspect of resource management and its impacts on environment and people alike can be missed in the narrow definition of stewardship. Instead, kaitiakitanga needs to be understood as a socio-environmental ethic managing resources and people relationships in the past, present, and future (Kawharu, 2000). In a way, one could describe it as an ethic management system to manage the commons. Durie makes the connection between the well-being of people and the environment. An important role of

kaitiakitanga is to provide people with access to a clean and healthy environment (Durie, 2006).

Dick et al. (2012) also connect the well-being of people with the well-being of the environment.<sup>114</sup> They see cultural and ecological loss as going hand in hand. The example of collecting mahinga kai is used to demonstrate how difficulty in accessing traditional foods is eroding what used to be a way of life. Because there is less to find in the first place, the willingness to share decreases. Traditions like manaakitanga involving customary foods for which marae once were well known, cannot be upheld, which impacts on a people's mana. As people have less and less opportunity to share in the food gathering, the knowledge of species lifecycles and harvesting cycles, together with traditional ways of harvesting, get lost. This loss also leads to diminishing opportunities to share the stories of old in their appropriate environment, and therefore connections also get lost (Dick et al., 2012).

In its report on the Wai 262 Claim (The Indigenous Flora and Fauna and Māori Cultural and Intellectual Property Claim), the Waitangi Tribunal confirms the importance of kaitiakitanga. Kaitiakitanga is linked to both, whanaungatanga, the relatedness to not only humans, but all other creatures and things inanimate; and rangatiratanga the right to control. Kaitiaki, thus, have an intergenerational responsibility towards taonga within their tribal areas (Waitangi Tribunal, 2011).

So, who are the kaitiaki? Under a customary worldview, kaitiaki existed in the spiritual realm, represented by environmental entities. They could manifest themselves in form of animals, rocks, plants or mythical beings such as Taniwha. In the physical world they were represented by kaumātua and rangatira who allocated access to resources. In today's world, these relationships continue in principle but with the added difficulty of loss of access to land, resources, and loss of associated knowledge. In the Kai Tahu tribe, families known as rūpara were specialist kaitiaki of the waterways (Williams, 2006). Despite a changing world, kaitiaki families still carry their responsibilities (Forster, 2012; Mutu, 2002; Smith, S.M., 2007; Williams, 2006).

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<sup>114</sup> The connection between the well-being of the environment and people is also made across the Tasman among Indigenous Australians: "looking after country and looking after people go hand in hand" (in the Djelk culture). Learning from participation in the 'Healthy country, healthy people study' (2009), shows that caring for country makes people healthier due to exercise and better nourishment (Rostron, Campion & Namarnyilk, 2012). The question is what comes first – Dick and colleagues suggest that people need to be healthy before they can look after the environment (Dick et al., 2012).

At times, this puts them at odds with tribal economic institutions participating in a modern 'corporate' economy. It is not uncommon to see one part of a tribal organisation steeped in tradition, challenge an economic venture, such as farming, proposed by the economic arm of the same tribal organisation (Stevens, 2013). This in a way confirms the dynamics involved in formulating a new worldview as described above (Royal, 2007). It also opens opportunities for the development of new management practices in line with core kaitiaki values (Stevens, 2013).

A new understanding and approach to kaitiakitanga and resource management is likely to evolve over time. Whakawhanaungatanga provides the capacity for consensus. It is based on opportunities for engagement to make contributions to a shared vision and participate in decision making (Durie, M., 2006). While much of Durie's work is closely related to the health sector, the link between human and environmental well-being suggests that the concepts can also be applied in the freshwater management context.

As mentioned above, whanaungatanga includes the sentiment of being related to the natural world. This goes back to the descent from Papatūānuku, the Earth Mother and Ranginui, the Sky Father (Peet, 2006). While the term is predominantly used to describe a range of relationships in the immediate and extended family, Metge has also identified the use of the term as a quasi 'whānau of interest'. In this context it can relate to "an assembly of people of like mind and interests gathered for a common purpose" (Metge, 1995, p. 55). Whanaungatanga can thus reach beyond the Māori communities and include the engagement with wider society. It implies a commitment by members of a whānau to each other and acts as a reminder of responsibilities towards other people with a shared blood tie or interest (Metge, 1995; 2010).

### **7.3.5 Insights from the Exploration of Key Values in the Literature**

The literature review supported the relevance of the values of kaitiakitanga, rangatiratanga and whanaungatanga observed during the IFS/MRLF workshops and meetings in relation to Māori, freshwater management, and the aim to restore mauri and mana. The need to understand kaitiakitanga as a socio-economic ethic for resource management, rather than an endeavour of resource preservation and conservation only, places Māori interests across a broader spectrum than environmentalism only. Whanaungatanga, understood in the sense of 'whānau of interest', can lead to new networks of like minded people from different walks of life. It also carries the idea of including relationships with nature, such as the relationship with the River in the communities of interest. Tino rangatiratanga is potentially the most

challenging of the values to be lived as long as Māori are perceived as mere stakeholders rather than partners in freshwater management.

#### Box 7.6 Reflection on Numbers of IFS/MRLF Participants Continued

Stakeholder or partner – should and would the numbers have been different under a partnership model?

The situation was different at MRLF meetings and hui-ā-iwi. At these forums numbers were not limited to one participant and one observer. Quite often up to three or four members of each iwi/hapū grouping attended. However, there is little or no evidence that the number of attendees had an impact on outcomes, for example during the funding process. This suggests to me that there is still a fundamental lack of understanding between the parties.

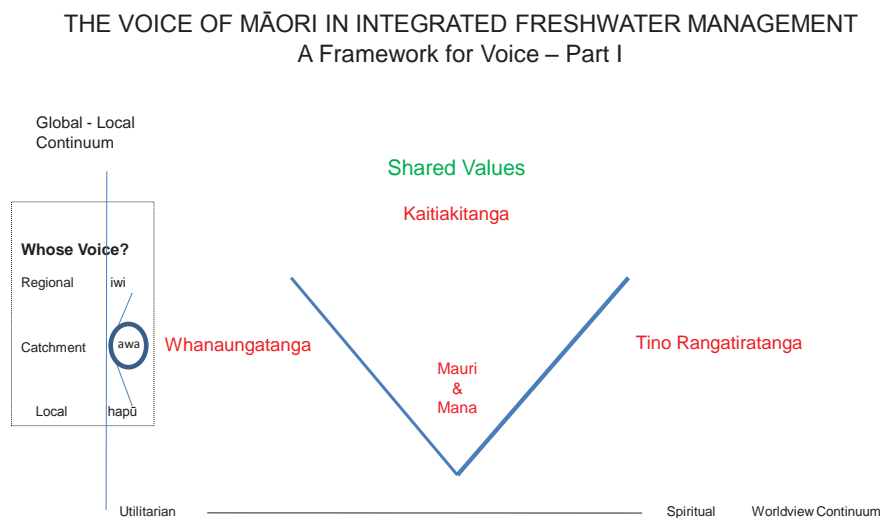
### 7.4 SUMMARY – UPDATES TO THE FRAMEWORK FOR VOICE

The triangulation of findings from the IFS/MRLF workshops with findings from the literature and the underlying ideas of a framework of voice have, in the main, supported the relevance of the chosen values. Mauri and mana remain at the heart of the ‘V’ for voice. They represent the ultimate goal to be achieved, namely to enhance mauri and mana for the river and consequently the people along the river. The values of kaitiakitanga, tino rangatiratanga and whanaungatanga provide the guiding principles for collaboration in integrated freshwater management. They operate in the context of the four core values of whakapapa, wairua, ukaipotanga, and tauutuutu, which are not explicitly shown in the framework.

The inclusion of both iwi and hapū voices, remains as a prompter to understand and acknowledge the history of iwi/hapū in a catchment. It is a reminder that engagement only with iwi institutions negates the self-determination rights of hapū in their relationship with the river. Iwi and hapū both need to be engaged in dialogue. Where too many overlapping interests hamper progress, the voice of the river (te reo o te awa) or the call of the river (te karanga a te awa) may well act as the uniting voice. It has consequently been added to the framework.

The discussion about worldviews has confirmed the need for a continuum, depicting the potential range of voices from an exploitative utilitarian approach in which humankind is dominant over nature to a spiritual/reciprocal or mana-enhancing approach that acknowledges humankind as part of nature. The continuum shows that freshwater management does not have to be approached from an either/or position. It

invites people to consider freshwater management based on the values of different underlying worldviews. It suggests that utilitarian and spiritual relationships with water are complementary and not mutually exclusive. Taking the ‘and’ approach has the potential to lead to a rethinking of solutions acknowledging cultural values. It challenges policy makers and decision makers to assess potential solutions against a wider range of criteria. Figure 7.10 includes the voice of the River in the emerging framework as only modification at this point in time.



**Figure 7.10: An Emerging Framework for Voice – Adding the Voice of the ‘Awa’**

The next chapter will build on this framework. It will argue that short-term collaborations need to be complemented by intergenerational vision and planning in order to strengthen the voice over time.



## **CHAPTER 8. AN ARGUMENT FOR COMBINING SHORT-TERM COLLABORATIONS AND INTERGENERATIONAL PLANNING IN SUPPORT OF THE VOICES OF MĀORI**

The triangulation of research questions, insights from the case study, and the literature in Chapter 7 supported the first half of the framework for voice. It raised awareness for the need to establish who is speaking and from what value base, given the multitude of voices representing a range of worldviews. Three underlying key values were confirmed to be of relevance – kaitiakitanga, tino rangatiratanga, and whanaungatanga.

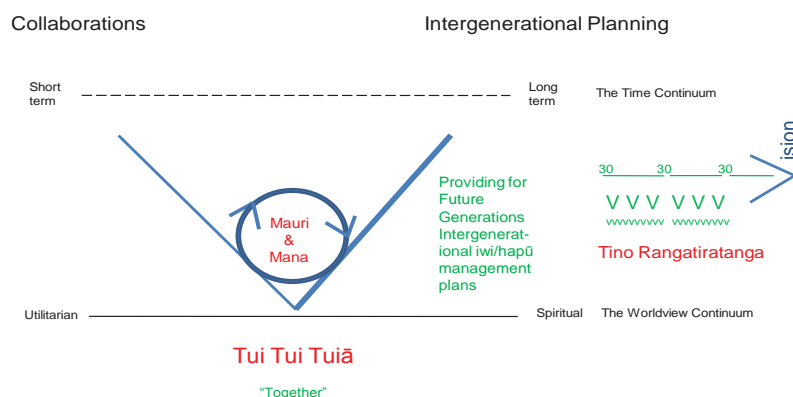
Chapter 8 addresses the second half of the emerging framework. Like Chapter 7, it draws on observations from the case study as described in chapters 4–6. However, rather than exploring the research questions in the light of assumptions made before the research (as was the case in Chapter 7), the discussion in this chapter is aimed at developing an argument for the need to combine short-term collaboration with intergenerational planning based on insights from the case study.

Part II of the framework for voice as depicted in Figure 8.1, represents the temporal dimension of the framework. Analogue to Part I of the framework (see Figure 7.2), ‘V’ for voice remains at the centre of the framework. ‘Mauri & Mana’ are encapsulated by a circle with two arrows, showing the iterative nature of building mana and mauri over time. The thin and bold outlines of the ‘V’ signify the transformation towards a stronger voice in the long term.

The time continuum, connecting short-term collaborations with intergenerational vision and planning is shown at the top of Figure 8.1. Collaboration and intergenerational planning are placed at the two ends of the continuum. The three 30-year periods, indicated on the right-hand side with the two rows of smaller ‘v’ beneath, show the connection between intergenerational planning and council’s long-term (10-year) and short-term (3-year) planning. Intergenerational Planning occurs in the context of a long-term vision, which is shown on the right-hand side of the figure. The concept of tui, tui, tuia, which stands for binding together, constitutes the final element of Part II of the framework.



THE VOICE OF MĀORI IN INTEGRATED FRESHWATER MANAGEMENT  
A Framework forVoice - Part II - Tools



**Figure 8.1: Draft Framework for Voice – Part II**

The argument to evolve the process of understanding between many voices representing a variety of worldviews and associated values begins with a brief description of Fleck’s philosophy of thought styles and thought collectives and the associated process of change. Research Questions 3 and 4 guide the discussion how different tools can contribute to building the voices of Māori over time:

Research Question 3: Voice in short-term collaborations – How do Mediated Modelling and other tools contribute to the voice of Māori?

Research Question 4: Voice and iwi/hapū river management planning – How do intergenerational plans contribute to the voice of Māori?

The exploration of Question 3 starts with a schema for different levels of listening in the context of different levels of complexity in the task at hand. Potential tools to make the voice heard in collaborative processes are introduced. Kōrero tahi (one speaker at the time), wānanga, and hīkoi represent three Māori tools that I have experienced to some extent. Mediated Modelling, the tool of choice for IFS is presented next. Finally, Appreciative Inquiry (AI) was chosen based on observations and resulting literature research.

Question 4 explores intergenerational planning from the perspective of cross-cultural interactions. The element of intergenerational planning and vision was added based on insights from the case study, in particular the RMPF process described in Chapter 6.

The importance of the restoration of mauri and mana were an underlying theme throughout all three phases. The literature review in Chapter 7 confirmed the inherent linkage between the two. An increase in mauri will lead to an increase in mana. This in turn is likely to lead to a stronger voice and more influence in integrated freshwater management. At the same time, the broad range of worldviews presents a challenge to make the voice of Māori heard in the sense of ‘understood’.

On one hand, intergenerational planning needs to allow for tino rangatiratanga and kaitiakitanga. On the other hand, it needs to be based on whanaungatanga at the interface with regional governance and planning. It also needs to connect people with the river and provide the conditions for change towards desired outcomes over time. The discussion of the framework Part II closes with the concept of tui, tui, tuia (binding together).

## **8.1 DEVELOPMENT OF THOUGHT OVER TIME – DISCOVERING LUDWIK FLECK**

The exploration of challenges for language, worldviews, and values related to influencing diverse stakeholder groups in collaborative efforts (Chapter 7), combined with the questions of what constitutes independent and original thought (Chapter 2), led to the discovery of Ludwik Fleck’s work. Fleck (1935/1979) describes the development of facts<sup>115</sup> as the result of continually changing styles in thought. According to Fleck, thought styles are shaped by a thought collective (constituting either a part of society or society as a whole), its values, and its norms. This view minimises the role of the individual and emphasises the role of the collective in the continuous development of thought. In the process of communication, what is thought is not necessarily what is expressed, and what is said is not necessarily what is understood. The process of small misalignments in communication is one underlying driver for change within the collective. Another is the collective effort of sense-making when new insights are being brought to the collective from the outside. These insights can be introduced by members of the collective who also happen to be members of other collectives, or by complete outsiders. Verbal communication needs to be complemented by practical experience to convey deeper meaning when new thoughts are being introduced (Fleck, 1935/1979).<sup>116</sup>

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<sup>115</sup> Most of Fleck’s writing concerns science and the development of scientific insights; however, his theory is more widely applicable (Couix & Hazard, 2013; Mößner, 2011).

<sup>116</sup> A similar dynamic can be observed in the development of collectives or social networks through influences from outside the collective. People with strong ties to the collective who interact on a regular basis share a lot of the same information, contacts and knowledge. People

In the collaborative effort of sense-making and establishing facts, participants need to realise that facts are not absolutely true or false per se, but true or false in the context of history and their related thought collectives. The same ‘facts’ can take on different forms when interpreted or seen in a different context (Fleck, 1946/1985). For example, Mātauranga Māori might cite the existence of a taniwha as an impediment to using a particular stream for recreation, whereas western science might provide a proof for the existence of a natural hazard at the same spot.

The survival of what Fleck calls ‘proto-ideas’ over long periods of time provide a certain level of continuity in the development of thought. Proto-ideas or pre-ideas are prescientific rudiments of modern theory. They form the basis for modern science which accepts or rejects them as being true in the context of the latest scientific understanding (Fleck, 1935/1979). Some of these ideas can reach back into the collective conscious around the creation of the universe (Bohm, 1996; Fleck, 1946/1985). An outsider to a thought collective will ‘look’, but struggle to ‘see’ what the insider sees. New knowledge appears chaotic or irrelevant until the person gains the necessary experience and starts to see the patterns. Being deeply embedded in a thought collective is a barrier to seeing new things and to accepting what contradicts existing knowledge (Buchanan, 2003; Fleck, 1935/1979).

This, to a certain extent, was evidenced in the IFS/MRLF workshops as non-iwi/hapū participants struggled with cultural concepts on the one hand and missed contributions that did not fit their expectations on the other hand (Chapter 4). A similar tension between the thought collectives representing different science disciplines was observed in a case study concerning conservation actions in the French Pyrenees. It concluded that the success of problem-based projects in a real life context depends on the compatibility of the various participants’ thought styles (Couix & Hazard 2013).

Human thoughts are shaped by underlying worldviews, as discussed in Chapter 7. Bohm (1996) highlights the challenge of different thought collectives in relation to creating meaning. “Thought produces results, but thought says it didn’t do it” (p. 10). As Bohm points out, ecological problems are based on the thought that the world is there to be exploited by mankind, that it is infinite, and that it can deal with whatever pollution mankind causes. All solutions to address this problem are caught in the same thought pattern of problem solving and trade-offs and, as a result, will only create new

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from the outside of the collective, i.e with weak ties to the collective, on the other hand, can make new connections, contribute new information, and act as catalysts to new developments (Granovetter, 1978).

problems. Different approaches can only be found if the collective thought moves into a new way of thinking about the world with the help of dialogue (Bohm, 1996).

The word dialogue has its roots in the Greek 'dialogos', with logos meaning 'word or meaning of the word' and dia 'through'. A dialogue can be understood as "a stream of meaning flowing among and through and between us" (Bohm, 1996, p. 6). The need to finding new approaches in creating meaning is of particular importance where problem solving requires a trade-off on values, requiring one party to give up a piece of their identity (Forrester, 1999). Dialogue can be seen as an act of creation, as naming the world is about creating the world. Dialogue becomes a horizontal relationship built on trust and the belief in man's ability to create and re-create. It ultimately allows people to construct, and therefore, transform reality and life over time (Freire, 1970/1993).

### **8.1.1 Challenges to the Thought Collectives of Māori and Pākehā**

In the case of fundamentally different thought collectives such as Māori and Pākehā, with a multitude of thought styles, the question is how different thought styles regarding freshwater management can evolve over time. The challenge to integrate knowledge systems or thought styles originating from different cultural values systems is recognised in literature evaluating the success of co-management and collaboration efforts between scientists operating in a western belief system, indigenous peoples and other stakeholders. The first issue is the acceptance of traditional knowledge, often delivered orally in the form of stories, as coherent and valid knowledge in its own right (Allen et al., 2012; Berkes & Henley, 1997). The second issue is how to respect this knowledge. There is an inherent risk, that traditional knowledge is fitted into the schema of western science (Battiste & Henderson, 2000; Nadasky, 2003). The third issue concerns the actual practices resulting from the collaborative decision-making processes. In many cases these practices end up being based on western management practices, which imply mankind's ability to 'manage' nature. This concept of humans being able to force their will on nature is rather foreign to indigenous people (Stevenson, 2006).

It is also difficult to provide clear evidence which approach (indigenous or western) is more effective in modern day resource management. Overall, there appears to be some consensus that progress in collaborations can only be made over time, adopting an adaptive management approach of 'learning by doing'. The value from such processes is not necessarily seen in the synthesis of the two knowledge systems, but in the building of mutual respect and trust. Over time, these relationships can lead to

networks of collaboration and a gradual embedding of new approaches (Berkes, 2009; Bohensky & Maru, 2011; Hardey & Patterson, 2012; Natcher, Davis, & Hickey, 2005).

In New Zealand, it is proposed that Māori and Pākehā develop a complementary relationship that allows them to work towards a shared goal of healing degraded ecosystems. There is a need to engage at grassroots level. Parallel research (western and Mātauranga Māori based) should be directed towards developing solutions that work for Māori from a cultural perspective (Fenemor et al., 2012; Taiepa et al., 1997). In the example of 10 years of Integrated Catchment Management Research in the Motueka Catchment (South Island) the importance of trust and relationship building stands out. Ample time was required for formal and informal engagement, allowing people to become familiar with different worldviews and styles of communication (Allen et al., 2012). The study confirms the intended IFS approach to build relationships upfront. The 10-year timeframe of the study supports the IFS dilemma of compressing time frames from 2 years to 6 months described in Chapter 4.

Fenemor and colleagues make another interesting point when they stress the benefits of empowering western scientists and mana whenua iwi to engage with Māori values (Fenemor et al., 2012). This suggests there needs to be 'quasi' permission from funders and research organisations and possibly the wider community to engage with a different body of values and related knowledge.

The insights outlined above, combined with the findings from the case study, support the challenge for short-term collaborative processes to have a lasting influence on the dominant thought collectives in the room. It highlights the need to give voice and to take a long-term approach to building trust and relationships. The next section looks at tools to create opportunities for the development of new thoughts at the cultural interface.

## **8.2 TOOLS TO ENABLE THE DEVELOPMENT OF NEW THOUGHT OVER TIME**

The challenges presented by different cultures, worldviews and languages in dialogue require a conscious effort to engage. As Alain Wouters (in Kahane, 2004) points out:

This world is too complex and interdependent and rapidly changing for us, to be able to reason through everything that is going on. We can no longer rely on making sense of the whole of what is going on: we also have to sense it. This requires us to assess a deeper, non rational, more ancient kind of knowing. (p. 105)

Scharmer (2009) reflects the challenge of listening and engaging at different levels of knowing in his taxonomy of four different ways of listening: downloading, or listening from within one's own story, is the most basic level. The listener only hears that which confirms his or her own story or knowledge; debate occurs at the next level. People listen to each other and their ideas from the outside, i.e. they remain objective in the process; the next phase is characterised by Reflective Dialogue. People listen to themselves reflectively and others empathetically. Listening happens from the inside and is subjective; at the deepest level of listening, the Generative Dialogue, people listen not only from within themselves or the position of others but from the whole of the system (Scharmer, 2009). The potential for generative dialogue on a deeper level of connection between people and the universe achieved over long periods of time was also acknowledged by Bohm (1996).

Scharmer's taxonomy mirrors the different approaches to 'verstehen' described in Chapter 3. 'Verstehen' at the day-to-day, downloading level is limited to testing new information against what one already knows. The next level connects objective observation with debate of other concepts. This is followed by subjective 'verstehen' from the view point of the other. Generative dialogue requires an additional, deeper level of 'Verstehen' that connects people with each other and the universe.

### **8.2.1 Short-Term Collaboration and Collaborative Learning Towards a Deeper Level of Understanding**

In the following, a selection of tools for collaborative learning is briefly described. These tools were selected based on insights from the IFS/MRLF workshops and literature. In particular, the challenge for iwi/hapū participants of being heard, the number of active participants in workshops, as well as issues around the predominantly voluntary nature of iwi/hapū participation, guided the selection. The choice of tools should not be seen as a complete overview of potentially suitable tools to be deployed in similar case studies. Nor should they be seen as mutually exclusive. They are potentially complementary, as they bring different strengths to the process.

First, *kōrero tahi*, *wānanga* and *hīkoi*, are described as tools with roots in Māori tradition. This is followed by a brief description of two western tools, Mediated Modelling and Appreciative Inquiry. Mediated Modelling supports collaborative learning in the search for solutions to complex problems in real life settings. Appreciative Inquiry engages participants in the search for opportunities based on shared values and vision. The discussion of the different approaches happens from a limited basis of 'Verstehen'. This

understanding is predominantly based on knowledge held in literature, rather than practical experience.

### **8.2.2 Kōrero Tahi – Wānanga and Hīkoi**

The significance of interacting with Māori, not only in a western, but also in a Māori setting, has been recognised. Interacting on marae for example, is seen as mana enhancing for iwi/hapū. It moves the interaction into 'the world of Māori', thus acknowledging it (Allen et al., 2012; Fenemor et al., 2012; Harmsworth, 2005). Traditionally, Māori considered matters of importance at a hui. Generally, this was a 2–3-day affair, giving participants ample opportunity to engage. Hui would take as long as it took to come to consensus. Great leaders possessed the skill to identify the moment of consensus in the room and to sum up what it constituted. However, individual hapū had an option to agree to disagree, i.e. opt out (Mead, 2003; Salmond, 1975/2005). Modern-day hui are often shorter, lasting hours rather than days. In an urban context, it is often not possible to hold hui on marae (Metge, 2010).

Metge (2001) describes the process of kōrero tahi as a form of nga tikanga kōrerorero (with the doubling of 'rero' indicating the reciprocal nature of the exchange). Kōrero tahi, one speaker at the time, is a process of consensus building at whānau or hapū level under difficult circumstances (Metge, 2001). There are three core approaches in structuring discussion and debate: going around the circle; criss-cross exchange; and passing the stick (tokotoko). Going around the circle is most appropriate for opening a discussion by giving everybody a chance for introductions. Criss-cross exchange allows speakers to take turns in getting up and speaking as they have something of relevance to add. While a speaker has the floor, nobody interrupts. After finishing speaking, speakers have to wait until at least two or three others have spoken, before they can claim the floor again. Passing the tokotoko allows a speaker to pass on the speaking right to a person of their choice. Kōrero tahi is based on the principle of collective responsibility to make the process work. It is not recommended when time is limited and specific actions or decisions are expected (Metge, 2001).

Kōrero tahi appears to be most closely aligned with Reflective Dialogue and possibly Generative Dialogue in Scharmer's taxonomy. Skilled orators in te reo were able to deliver their arguments in form of narratives or stories that formed the basis for others to add and create new stories to make their point (Rewi, 2010). The usefulness of tribal leaders was related to their capacity to facilitate a consensus model for decision making. The collective voice gave leaders their legitimacy (Katene, 2006).



Wānanga provide an environment for collaborative learning based on the principle of 'ako' – to teach and learn at the same time. Like hui, wānanga can be held over several days, giving participants the opportunity to connect and build trust in alternating informal and formal interactions. Holding hui or wānanga on marae, allows participants to connect more easily with the world of Māori and its spirituality (Metge, 2001). The setting creates a different energy and allows events to unfold in accordance with tikanga Māori. This dynamic was very noticeable during the Te Kāuru RMPF wānanga as described in Chapter 6.

A hīkoi (walk) or 'travelling workshop' is an opportunity for relationship building (whanaungatanga) and collaborative learning in an informal setting (Meurk, Pauling, Ataria, & Kirikiri, 2006). It takes the audience to places of mutual interest and reconnects participants with the natural environment. It has the advantage that there is no level of abstraction between the place and the people. Knowledge specific to the place can be shared in real time and connected with the stories of the past and opportunities for the future (Meurk et al., 2006; Smith, S., 2007)<sup>117</sup>.

The three tools – kōrero tahi, wānanga, and hīkoi – can be seen as complementary, filling different needs of information gathering/learning and consensus-based decision making.

### 8.2.3 Mediated Modelling

Mediated Modelling was the tool of choice for the IFS process. It is an approach to environmental consensus building based on system dynamics (van den Belt, 2004). Consensus building in planning processes can be seen as a method of group deliberation, bringing together a wide range of stakeholders with differing interests in a problem. Its aim is to arrive at consensual decisions approximating the public interest, thus strengthening the planning process (Innes, 2007). As briefly outlined in Chapter 2, the purpose of Mediated Modelling is to aid planning, decision- and policy-making processes in real world settings through the development of high-level scoping models. It has been developed in the context of Ecological Economics to integrate economic, ecological, social, and cultural aspects when addressing complex or wicked problems of sustainability.

Mediated Modelling is a participatory approach with a focus on collaborative learning rather than the model per se. It allows participants in the collaborative process to bring

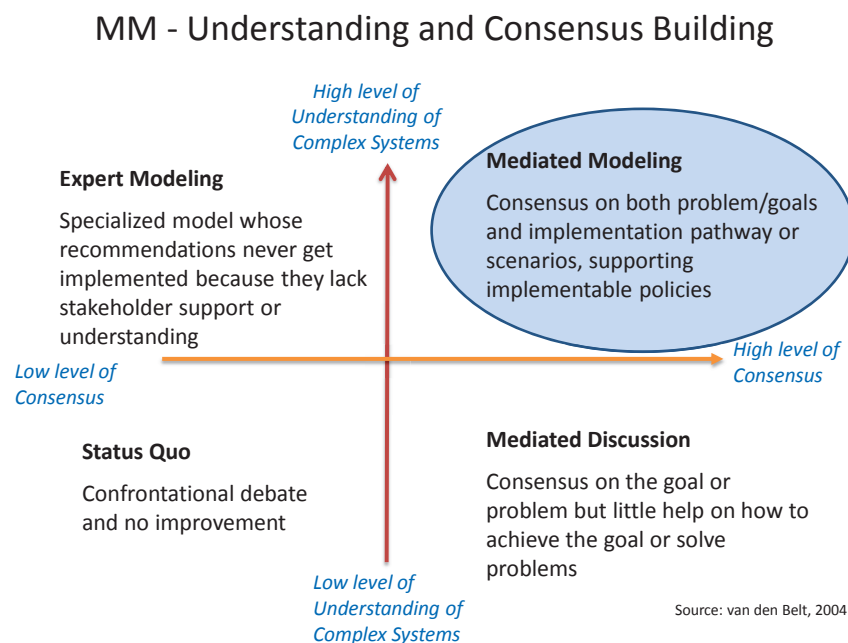
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<sup>117</sup> The idea of going on a 'fieldtrip' and visiting some sites of mutual interest was considered during the IFS/MRLF workshops. It was ultimately abandoned due to time constraints.

to the table their current views and understanding of problems as well as potential solutions. It educates non-scientists on scientific findings, while allowing scientists to get an appreciation of the practical challenges other stakeholders face. It helps participants move beyond the status quo by substantiating and visualising information presented during the discussion of existing problems and proposed solutions. Preferred outcomes can be described.

Mediated Modelling may use software to model past, present and future dynamics of human systems and ecosystems and their interdependencies based on quantitative data sets if and where they are available. The modelling is aimed at understanding how systems change over time and how they respond to different types of interferences. Models are scalable from local (sub-catchment) to catchment to regional and national or even global levels. They can show feedback loops and lag times. In the modelling process, consensus about the new state and how to achieve it can be negotiated (van den Belt, 2004).

Mediated Modelling has the advantage over expert modelling that the process is done with, rather than to stakeholders. This improves chances for collaborative consensus building and conflict resolution, thus reducing the risk of costly litigation at a later stage (van den Belt, 2004). Figure 8.2 positions Mediated Modelling as a tool in the complexity/consensus quadrant.



**Figure 8.2: Positioning Mediated Modelling in the Complexity/Consensus Quadrant**  
 Source: van den Belt, 2004, p. 18

Mediated Modelling is an initial assessment tool in an adaptive management cycle of visioning, analysing and assessment, planning, doing and monitoring, as described in Chapter 4. This cycle can be entered at any given stage and repeated over and over again, adding new information and insights into the process over time (Forgie & Richardson, 2007; van den Belt, 2004, 2009; van den Belt et al., 2010a). The integration of data from the real world and their ability to connect past, present and future in one model allows participants to scope relevant questions and test decisions and their likely outcomes. These data can be updated with real life insights over time and as the cycle gets repeated.

Mediated Modelling, as practised from a base of Ecological Economics, builds on some fundamental concepts that are to some extent aligned with the worldview of Māori. They are the acceptance of humankind as part of the earth-system rather than master over earth, the need for just allocation and distribution of resources and the responsibility to future generations. Mediated Modelling can raise awareness of barriers to communication associated with different value systems. Its real value lies in the facilitation of bringing a variety of perspectives together (Metcalf, Wheeler, BenDor, Lubinski, & Hannon, 2011). It has its limitations in the numbers of actively involved participants in the modelling process, i.e. for Māori, consensus with their wider community needs to be pursued outside the workshop process (van den Belt et al., 2013).

As outlined in Chapter 4, Mediated Modelling was relegated to a back office function after the third IFS/MRLF workshop. Even though the updates were based on input from the workshops and presented at the next workshop, the modified process meant that Mediated Modelling did not have a chance to live up to its full potential in the Manawatū case study. In the context of the IFS/MRLF workshops, listening mainly happened on Scharmer's level of Debate and to a certain extent Reflective Dialogue. The opportunity to move towards Generative Dialogue did not eventuate. The possibility of effectively integrating cultural values in the model was demonstrated in the development of a sub-catchment model in the context of one of the IFS sub-projects (van den Belt, Horton, Forgie, & Schiele, 2014, in preparation).

### Box 8.1 Kōrero Tahi and Mediated Modelling

In an early conversation, Dennis Emery from Ngāti Kauwhata had drawn parallels between Mediated Modelling and kōrero tahi. The aspect of dialogue and building on each other's inputs was cited as one of the reasons why iwi/hapū were drawn to the IFS project (Emery, pers. comm., October 2010).

#### 8.2.4 Appreciative Inquiry

Observations from the case study resulted in a literature search for complementary facilitation approaches. First, there was the observed difficulty of making the voice of Māori heard during the IFS/MRLF workshops and following MRLF funding and implementation processes. Then there was the reluctance, in particular of TLAs, to engage in a time-consuming process. Time and lack of funding outside the IFS process was also an issue for voluntary iwi/hapū participants. This was exacerbated by the need to build consensus with iwi/hapū members not included in the workshop process.

In addition, observations on the need for Māori to move from reactive problem solving to pro active initiatives developing transformative outcomes (Royal, 2002; Smith, G.H. 2001) guided the search. The choice of tools could have included others, such as Future Search (Janoff & Weisbord, 2006; Weisbord & Janoff, 2010), Open Space Technology (Owen, 2008), World Cafe (Brown & Isaacs, 2005; Isaacs, 1999), and Scenario Planning (Costanza 2003; Frame 2008; Kahane, 2012), or Bohm's (1996) Dialogue process.<sup>118</sup> Ultimately, AI was chosen in this context, due to its strength-based transformative change capacity. It builds on narrative and is scalable to large numbers of participants.

Developed by Cooperrider and Srivastva in the 1980s, AI is based on the insight that "human systems grow in the direction of what they persistently ask questions about. This propensity is strongest and most sustainable when the means and ends of inquiry

<sup>118</sup> The dialogue process described by Bohm involves groups of 20–40 people, representing a microcosm of society. It runs over long periods of time (1–2 years plus) and without a set agenda. It has the potential to create new, collective meaning and opportunities for change, making it a win/win for the collective (Bohm, 1996). Dialogue of this nature involves the suspension of judgement and existing assumptions, requires equal participation and empathetic listening. It is reaching into a tacit understanding of the world, a collective conscious that stems from mankind's connection with the cosmos. This kind of dialogue can still be observed among indigenous peoples (Roberts, 2002; Senge, 2006). Scharmer calls the process of reaching into the collective conscious 'Presencing'. It is a fundamental element of his Theory U process taking participants through five steps of Co-Initiating, Co-Sensing, Presencing, Co-Creating and Co-Evolving (Scharmer, 2009).

are positively correlated” (Cooperrider & Whitney, 2000, p. 6). AI has been evolving in the context of an increasingly complex world. It is based on social constructionism that implies that how people think and talk determines what they care about and consequently do. If people concentrate on problems, they create more problems, if they concentrate on solutions, they can create more solutions and the sharing of dreams can create alternative futures (Emery, Fey, & Flora, 2006; Bohm 1996).

AI provides an alternative to problem-solving. Cooperrider & Whitney (2000) describe it to be

... about the search for the best in people, their organizations, and the relevant world around them. In its broadest focus, it involves systematic discovery of what gives “life” to a living system when it is most alive, most effective, and most constructively capable in economic, ecological, and human terms. (p. 5)

Taking a whole-of-system approach, it can involve hundreds of participants going through a four-step cycle of ‘Discovery’ (Appreciation of the best there is), Dreaming (What might be in an ideal world), Design (What should be), and Destiny (How to make it happen).<sup>119</sup> In many cases, the discovery phase is the most challenging and time consuming. It engages potential stakeholders in the discovery process through an iterative process of interviews collecting the stories of what works well. The aim is to identify the basis for transformation (Cooperrider, 2000; Cram, 2010; Emery et al., 2006; Finegold, Holland, & Lingham, 2002). It is building on the positive that is, and is drawing people towards the positive that can be. “By deliberately changing the internal image of reality, people can change the world.” (Harman, 1988 in Cooperrider, 2000, p. 30).

Hammond (1998) describes eight assumptions of AI:

1. In every society, organization or group, something works.
2. What we focus on becomes our reality.
3. Reality is created in the moment, and there are multiple realities.
4. The act of asking questions of an organization or group influences the group in some way.
5. People have more confidence and comfort to journey to the future (the unknown) when they carry forward parts of the past (the known).

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<sup>119</sup> Analogous to the adaptive management cycle described under Mediated Modelling, the AI cycle can be iterative. In the case of the city of Cleveland, which is about building a thriving green city on a blue lake, the summits have been held annually since 2009. They are intended to continue through to 2019. It's a long-term commitment to really transform Cleveland, and the summits involve a large and diverse group of stakeholders.  
<http://www.city.cleveland.oh.us/CityofCleveland/Home/Community/ThingsToDo/AISummit>

6. If we carry parts of the past forward, they should be what are best about the past. 7. It is important to value differences. 8. The language we use creates our reality. (p.17)

Research on strategies to inspire sustainability equally supports the power of positive emotions and stories as ‘meaning makers’ (Harré, 2011).

AI fits the philosophy of kaupapa Māori in several ways. First, it is strength based, enforcing the positive there is. The use of stories and narratives builds on one of the core communication tools in Māoridom. AI is designed to involve all people in a community of interest and allows participants to take control of the stories and shape new stories from a grass roots level upwards in a process of transforming relationship. While it builds on strengths, it does not ignore the existence of problems, but it approaches them from a positive angle of what could be (Cram, 2010). The spirit of AI can also be observed in Tipu Ake ki Te Ora (Growing towards Well-being) approach (Goldsbury, 2001), which will be discussed in more detail in the Intergenerational Planning section. The underlying philosophy of AI suggests dialogue would most likely happen on the reflective and generative levels of Scharmer’s taxonomy of listening.

This section first introduced three tools with roots in Māori tradition. This was followed by the discussion on Mediated Modelling and AI as potential approaches to facilitating short-term collaborations involving Māori and Pākehā with a view of strengthening the voice of Māori in the process. Mediated Modelling has its strength in the ability to translate the dialogue into a scoping model which can substantiate insights with the help of quantitative data. Given the limits to active participants in the process, the success of Mediated Modelling is partly reliant on the capacity and willingness of participants to share their learning more widely. AI can involve larger numbers of participants. While the preparation for the engagement might be time consuming, the actual workshop engagement for participants is less so. Since the suitability of the latter two tools cannot be judged based on the Manawatū Case Study, it is suggested that further research should be done to explore the suitability of the two tools in integrated freshwater management involving Māori and Pākehā.

The next section will look at intergenerational vision and planning as another tool to give Māori voice.

### **8.3 VOICE AND IWI/HAPŪ RIVER MANAGEMENT PLANNING – HOW ARE THE TWO CONNECTED?**

Complementary tools to communicate and capture the voice of Māori are iwi and hapū management plans. The Manawatū RMPF process prompted some research into the role and effectiveness of iwi/hapū management plans, which is described first. This is followed by a brief summary of insights from the Te Kāuru process, which led to the fourth research question – Voice and iwi/hapū river management planning – How could intergenerational plans contribute to the voice of Māori? A discussion is developed how intergenerational plans could potentially influence the thinking in regional and local authorities over time and engage hapū at a grassroots level at the same time. The discussion is based on insights from the case study and the literature.

#### **8.3.1 The Right to Participate in Planning and Decision Making of Freshwater Management**

As briefly outlined in Chapter 2, Māori rights to participate in resource planning and decision making are recognised at several levels. International Law covers Indigenous Peoples' rights in general. Under the Treaty of Waitangi, the Crown is required to protect the full authority of iwi and hapū in relation to their taonga, including lands, water, flora, and fauna. Two acts have particular relevance in this context – the LGA and RMA. The LGA concerns all Māori (regardless of tribal roots) living in a city or district, and is aimed at all aspects of the community. The RMA is specifically aimed at resource management involving tangata whenua and is discussed in more detail next. Before the introduction of the RMA, all environmental planning was top-down planning, providing little or no opportunity for communities to engage in the process. From the mid '90s efforts to engage have steadily increased (Harmsworth, 2005; Harmsworth & Awatere, 2013).

In its Wai 262 ruling, the Waitangi Tribunal found that the Crown needs to enable kaitiaki to fulfil their obligations without necessarily conceding a general right to veto resource management decisions made by councils. All interests must be balanced in the context of present day. Once this balance has been achieved, kaitiaki should have control over resources where their interests have been acknowledged to take priority. A partnership in decision making should be attempted in areas where kaitiaki have a strong interest. In all other cases, kaitiaki still have the right to influence decision making. The Tribunal furthermore acknowledged that in principle the RMA provides the legal platform for kaitiaki to participate in resource management. However, it also



recognises that the RMA has not necessarily been implemented in the spirit of its intent (Waitangi Tribunal, 2011).

Before a decision is made under the RMA, decision makers must consider the principles of sustainable management under Section 5. Under Section 6e, they need to recognise and provide for the relationship of Māori to water, wāhi tapu, ancestral lands and other taonga. Section 7a gives particular regard to kaitiakitanga. Section 8 takes the principles of the Treaty of Waitangi into account (Ministry for the Environment, 2003). Section 33 of the RMA allows local authorities to delegate responsibilities in freshwater management to mandated iwi organisations. The application of Section 33 is the exception (Memon & Kirk, 2012).

Relationships with councils can often depend on the relationship with a limited number of employees. This makes the relationships rather vulnerable when these employees move on. Relationships at senior management or councillor level are the exception rather than the rule. Councils that see the role of tangata whenua as complementary to, rather than competing with, their resource management duties find it easier to build strong relationships (Harmsworth, 2005). The RMA Reform proposal 2013 suggests strengthening the position of iwi and hapū. Councils need to actively seek input from iwi and hapū. They have to have a particular regard for iwi/hapū inputs and finally they need to report on how iwi/hapū input was considered (Ministry for the Environment, 2013a).

The RMA is complemented by National Environmental Standards, National Policy Statements, and the New Zealand Coastal Statement. Together they provide the basis for regional policy statements. This in turn provides the basis for District, regional and regional coastal plans (Office of the General Auditor, 2011). Objective D1 in the National Policy Statement for Freshwater 2011 provides for the involvement of iwi and hapū in freshwater management. The related policy states that:

Local authorities shall take reasonable steps to:

- a. involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region
- b. work with iwi and hapū to identify tāngata whenua values and interests in fresh water and freshwater ecosystems in the region and

- c. reflect tāngata whenua values and interests in the management of, and decision making regarding, freshwater and freshwater ecosystems in the region. (Ministry for the Environment, 2011b, p.10)<sup>120</sup>

The main instrument available to iwi under the RMA is iwi management plans. The 2003 Amendment Act gave iwi planning documents more recognition. However, iwi management plans are not official planning documents. They can only provide a record of iwi positions on a range of social, environmental, economic, and cultural issues. They can stipulate preferred approaches to resource management or propose prohibited activities (Bell, 2003; Ministry for the Environment, 2003). The success of iwi/hapū management plans in influencing council plans seems to vary widely (Hughey, Kerr, & Cullen, 2010; Te Puni Kōkiri, 2013). For one, most plans concern land management under government or private ownership rather than land under iwi/hapū management. Second, while the lodgement of plans needs to be acknowledged, there is no formal process of integrating iwi/hapu plans with council plans. They tend to sit alongside each other.

The reaction of hapū members to the MRLF Action Plan during the Te Kāuru RMPF process indicated that iwi/hapū members might find it challenging to relate to wordy plans they have not been involved with developing (see Chapter 6).

### **8.3.2 Intergenerational Planning and Vision**

In Chapter 6, in particular, insights from the RMPF process described the time it takes to influence thought collectives, the obligation of Māori to cater for future generations, the lack of appeal of the wordy MRLF Action Plan together with the article about Owahanga Station's 100 year plan (Slade, 2011), all of which prompted the questions of whether and how intergenerational planning should complement short-term collaborations. It is beyond the scope of this research to go into a full discussion of the topic. Instead, this section aims to provide some initial thoughts that may lead to further research at a later stage. The thoughts concern the unpredictability of the future planning process and the need to think beyond the relationship with government agencies in intergenerational planning.

### **8.3.3 Dealing with the Uncertainty of Future**

“Unique to the human brain is the invention of ‘future’, allowing humans to think ahead and anticipate opportunities and risks rather than look backwards and be in the present

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<sup>120</sup> Objective D1 remains unchanged in the National Policy Statement on Freshwater Management 2014 (Ministry for the Environment, 2014).

only” (Suzuki et al., 2007, p. 10). Starr (2000) makes the point that intergenerational planning is challenging because of the hit-and-miss nature of forecasts and speculations about what the future will look like. Such planning needs to identify a vision and goals that can endure beyond the short-term politically driven goals of governments and their agencies (Starr, 2000). Hawken (2007), however, observes “You can try to determine the future, or you can try to create conditions for a healthy future” (p. 131). The former requires that we know what the future should be, the latter relies on social outcomes enabled by an environment in which citizens feel secure, valued, and honoured.

The Tipu Ake ki Te Ora process, developed by Te Whaiti-Nui-a-Toi, a Māori community in the Whirinaki Forest, addresses the balance between certainty on one level and uncertainty of future on another level. The process is based on observations from living systems such as forests. In such a system, each phase of growth has different cycles of growth and decay. Yet, in each phase, there is a constant drive towards well-being or ora, i.e. the plants grow towards the light. Tipu Ake ki Te Ora visions are timeless – for example, the vision “our grandchildren will cherish Whirinaki forest and the culture of its people” (Goldsbury, 2001, p. 34) applies from generation to generation. The MRLF vision ‘Kei te ora te wai, kei te ora te whenua, kei te ora te tangata’ has a similar fundamental, notion of timelessness. As long as the water is healthy, land and people will be nourished.

Under such a vision, desired outcomes, i.e. ‘what would need to be in place’, are agreed. For example, in the environmental context, kaitiakitanga, the responsibility for guardianship, needs to be in place and accepted. In this context, an indicator telling people of whether or not they are getting closer to the vision could be the acknowledgment by others that the forest (or river) is being cared for and its treasures are being shared. Projects towards the vision are agreed and implemented along the journey. Outcomes, indicators and projects can be modified as circumstances require (Goldsbury, 2001). The living systems approach acknowledges the dynamics of an organic system and the challenges at the various levels of growth. Key is collective responsibility and knowledge-sharing for the benefit of the collective well-being. The approach stands and falls with collaboration, grounded in integrity.

Owahanga Station in the Wairarapa has a vision of sustainable land management for the benefit of future generations. In a personal conversation, Mavis Mullins conveyed the approach of Owahanga Station to its 100-year plan. The need arose in order to capture the thoughts and work of current generations for future generations. The plan

is based on a visual representation of the station and a 100-year time line roughly representing four generations. The at-a-glance plan is limited to showing major events such as 30-year harvesting cycles for tree plantations or the celebration of whānau anniversaries. These events provide opportunities to celebrate what is and make decisions about what could be. Māori today find themselves in a different world with a different economy and different eco-systems. Many are removed from their roots and less dependent on the land for survival. This means that people have to constantly re-learn and re-assess how to work with the land, what is in it, below and above it (Mavis Mullins, pers. comm., February 2013).

The organic structure of planning an intergenerational vision also provides flexibility for engagement with different organisations in the process. As Te Kāuru members observed during their RMPF wānanga process, working only with government agencies is too limited. In the planning process to achieve their vision, wi/hapū need to be able to engage with a multitude of organisations, including other iwi/hapū. An enduring set of vision, outcomes, and indicators can provide the basis for project planning with different organisations and agencies in pursuit of the vision.

#### **8.3.4 Tui, Tui, Tuia**

Tui, tui, tuia, the final value in the framework for voice, has been the most elusive in literature. It has its roots in the ancient tradition of lashing together parts of a canoe. In more recent times it has been used to bind people together under the Treaty. For example, the motto of the 150 Year Treaty celebrations in 1990 was hui, hui, huiā, tui, tui, tuiā – gather and bond together (Metge, 2001, p. 20). It was chosen in the spirit of two peoples finding ways to bond. Inherent in tui, tui, tuia is the underlying purpose of reciprocity, the exchanging of gifts and taonga, the alternating hosting of feasts. They are all ways to establish and maintain relationships, i.e. bind people together (Metge, 2001).

Personally, I first encountered the concept in a speech given by Sir Mason Durie in 2011 at the Strategy New Zealand – Vision 2058 workshop run by the Sustainable Future Institute (now the McGuinness Institute). It was a speech of hope and opportunity for two people to work towards a better future for Aotearoa (Schiele, pers. notes, 2011b, unpublished). I then encountered the concept at a cultural awareness training session for midwives. In this context, Tui, Tuiā was described as the combining of kaupapa Māori and standards of western health practice to build supportive networks for the well-being of Māori women during pregnancy and childbirth (Whānau.Biz & Te Puni Kōkiri, 2009).

The concept appealed because of its inclusiveness and its potential to create new ways of doing things. It is not reflected in any of the value frameworks I have found in literature, and might not appeal to those who see a risk to the integrity of Māori culture in interaction with western culture.

#### **8.4 SUMMARY**

Chapter 8 explored Part II of the framework for voice. It discussed the evolution of voice over time through a combination of short-term collaborations and intergenerational planning and vision. An argument was developed, with help from the literature that thought collectives are slow to change their thought styles. Introducing ways of facilitating dialogue between thought collectives in short-term collaborations is seen as one way of introducing change.

Kōrero tahi, wānanga, and hīkoi were introduced as three Māori approaches to facilitating dialogue and collaborative learning. They provide forms of engagement in a Māori context that could be applied to cross-cultural collaborations. Their strength lies in their long tradition. Engaging with Māori in a Māori setting can help raise awareness of an alternative approach to collaborative learning. Mediated Modelling and AI were explored as western tools with a potential to build consensus in cross-cultural collaborations. The strength of Mediated Modelling lies in its ability to involve stakeholders in the translation of values into a shared scoping model, demonstrating interlinkages in time and space as well as causes and effects loops. The likely impact of decisions over time can be quantified based on existing data sets where they are already available. The limitation of Mediated Modelling lies in the number of participants who can be directly involved in the process. This, in particular, can be an issue for Māori and their preference for collective consensus and decision making. AI was introduced as it offers the opportunity to involve literally 100s of people. It builds on existing strength and a shared vision of what could be. Its potential weakness is that it relies on the implicit understanding of the whole system by participants.

Some evidence was provided that cultural values have been given more consideration with the introduction and evolution of the RMA. The provision for iwi management plans to be considered in the local and regional government planning processes has been established. Their effectiveness depends on the willingness of councils to engage with iwi/hapū. Intergenerational planning and vision were discussed as complementary to short-term collaborations. A preference was given to working on the basis of a timeless vision that will create an environment conducive to the well-being of future generations, rather than trying to predict an exact future. Tipu Ake ki Te ora and Owahanga

Station's 100-year planning processes were briefly described to outline such an approach. The discussion finished with tui, tui, tuia as a concept of binding two peoples together. Although this concept is not very widely used it reflects my preference for a connected process rather than two parallel processes to environmental guardianship. As a minimum, the two processes need to connect in the negotiation of joint projects and solutions.

Chapter 8 needs to be understood as a more hypothetical discussion. Most of the tools and approaches discussed in the chapter were not part of the research, but were drawn from the literature based on observations from the research. The second part of the framework for voice remains unchanged based on the above discussion as showing in Figure 8.4.

THE VOICE OF MĀORI IN INTEGRATED FRESHWATER MANAGEMENT  
A Framework for Voice - Part II - Tools

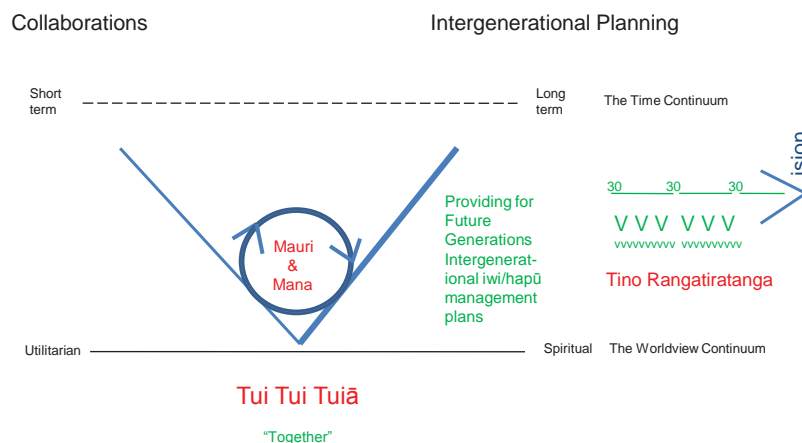


Figure 8.3: Framework for Voice Part II

**Box 8.3 Insights from the Process of “verstehen”**

- Ludwik Fleck’s theory of thought collectives and thought styles and the time it takes to change them supports the need to strengthen the voices of Māori over time.
- Based on the “Verstehen” reached at this point in time, new questions have arisen:
  - o How effective could the tools presented in this chapter be in facilitating reflective or generative dialogue when applied with sufficient time?
  - o How could the effectiveness of intergenerational planning and vision be proven over time?
  - o Can tui, tui, tuia be applied to create something new building on the diversity of the many voices or will tui, tui, tuia eventually lead to a unified model and the loss of diversity?

Chapter 9 concludes the dissertation with feedback from iwi/hapū participants on the framework of voice and final reflections on the research journey.



## **CHAPTER 9. FEEDBACK ON THE FRAMEWORK, CONCLUSIONS, AND PROPOSAL FOR FURTHER RESEARCH**

Chapters 7 and 8 respectively discussed Parts I and II of the framework for voice. Part I of the framework included ‘who is speaking’, worldviews, language, and values. Chapter 7 concluded that it is more likely that the voices of Māori will be heard in a cross-cultural context in which listeners are aware of the affiliation of the speaker and from what kind of understanding of the world contributions are made, i.e. the position on the worldview continuum. Because worldviews are often deeply held beliefs that change slowly, the recommendation and importance of connecting short-term collaborations with intergenerational planning and vision to support change over time, emerged. Chapter 8, supporting Part II of the framework, gave a brief introduction on Fleck’s philosophy of thought collectives and thought styles, which underpins the thinking about worldviews.

The first part of Chapter 9 presents the feedback received from iwi/hapū participants on the whole framework for voice. This feedback is reflected in a simplified version of the framework. Part II of Chapter 9 summarises the contributions the research has made. It commences with insights related to the process of ‘verstehen’ and how it contributes to trans-disciplinary research in a cross-cultural context. It then recaps how these insights are reflected in the framework for voice as a practical tool to guide other trans-disciplinary and cross-cultural initiatives in freshwater management in achieving a deeper level of dialogue among participants. This is followed by a proposal for further research, not only to test the usefulness of the framework in other contexts, but also to test the possibility to change conversations by changing the conceptual stance from which they are being conducted. The chapter concludes with my personal take on the call of the river – Te Karanga a te Awa – as a call for action and the start to a new conversation.

### **9.1 FRAMEWORK FOR VOICE – FEEDBACK AND MODIFICATIONS**

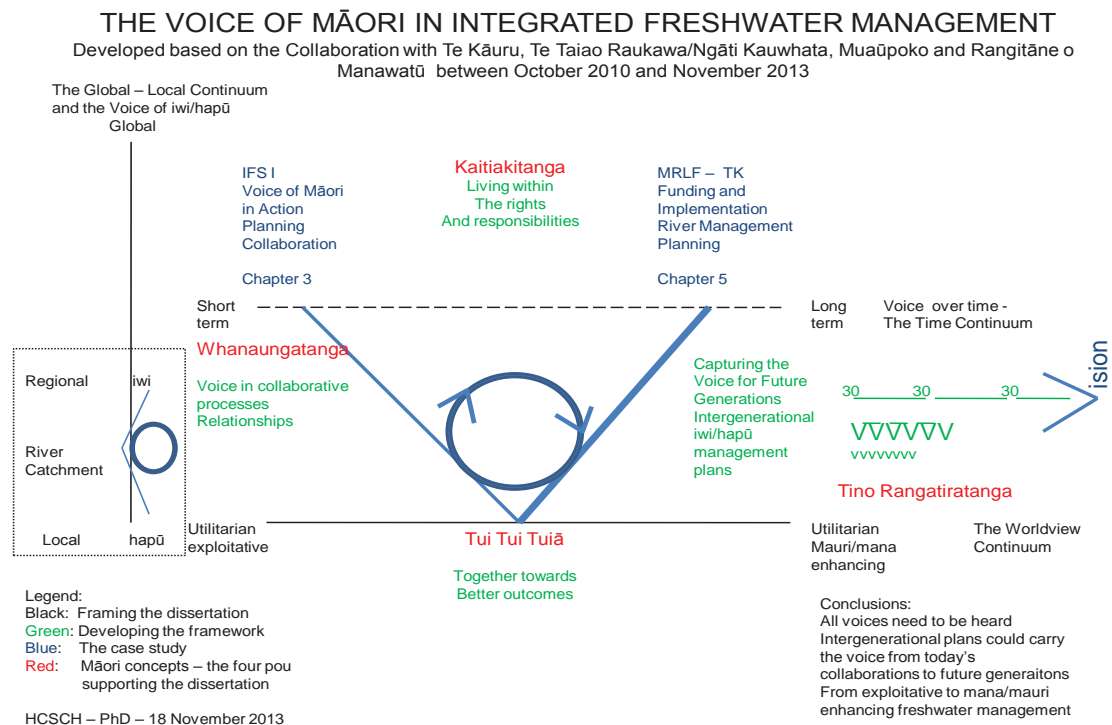
To assess the ‘framework for voice’ with the four iwi/hapū representatives who had participated in the IFS/MRLF workshops, I developed a final questionnaire. In addition, to the four core participants, one of the observers from Te Kāuru also offered to provide feedback. The purpose of the exercise was to establish whether the framework reflects the shared experience over the 3 years of the research, and whether it captures the essential aspects required to improve understanding in cross-cultural dialogue. The questionnaire consisted of two parts. The first part sought general feedback on the framework as a whole. Questions regarding this were asked in a semi-structured

interview. The second part of the questionnaire contained a series of value statements regarding 'whose voice', 'values', and the interdependency between short-term collaboration and long-term, intergenerational planning. Participants could indicate their level of agreement for each statement with the help of tick boxes ranging from strongly agree, agree, neutral, disagree, and strongly disagree. A conscious decision was made at the time to limit the feedback process to those who had been closely involved, as they were in the best position to judge whether or not the framework reflected insights from the collaboration over the 3-year period. There is potential to test the framework in its general applicability with a wider audience.

Figure 9.1 depicts the framework as it was presented in the questionnaire. This version of the framework differs in its presentation from the version discussed in previous chapters as it includes a more detailed description. The main differences are the association of short-term collaborations with the IFS workshops and the long-term planning with the RMP process at the top. The 30–30–30 number sequence and underlying rows of 'v' on the right-hand side are a reference to current regional and local long-term and short-term council planning regimes that happen in 10-, 3-, and 1-year cycles. The 30-year period was chosen to approximate one generation.

Conclusions from the research reflected in the framework are summarised at the bottom right-hand corner. They state that all voices, including that of the river, have to be heard. Intergenerational plans could carry the voices from today's collaborations to future generations, and also the need to move from exploitative to mana/mauri-enhancing freshwater management. Mana and mauri were moved from the circle in the central 'V' to the worldview continuum as a counterpoint to exploitative on the left hand side of the continuum. The legend at the bottom left-hand corner explains the colour scheme used in the framework. Black refers to the original framing of the dissertation along the geographical and worldview continua. Blue represents the phases of the case study – the short-term IFS/MRLF collaboration and the long-term RMP process. Red shows the key values chosen for the framework as they provide the connections to other not explicitly stated values such as manaakitanga, utu, and kotahitanga.

The explanations were added to give the interviewees a combination of the framework per se and a summary of the key insights that led to the framework.



**Figure 9.1: Framework for Voice as Presented During Interviews**

General feedback was that the framework as shown in Figure 9.1 captures key aspects in one diagram. However, it is too busy to be followed easily. Based on the feedback from the first two interviews, a simplified diagram was developed, which is shown in Figure 9.2. The remaining three interviewees were initially shown the first diagram and then the second one to get feedback on the simplifications. Feedback from these three interviews led to a further modification and simplification, which is shown in Figure 9.3. This last diagram would be the version recommended for assessment with a wider audience for its more generic relevance. Such an assessment is outside the scope of the current research.

### 9.1.1 Feedback on Voice – Who Is Speaking?

All interview participants commented on the voice aspect in the diagram. Comments referred to the interrelationships of the voices, but also to the aspect of voice over time. There is general agreement that there are multiple (Māori) voices, and these are not always consistent in their message. With one exception, all interviewees agreed that the voice of their iwi or hapū (depending on the group's practice) had become stronger over the 3 years. This was noted by the effort of council members to engage actively in conversation with Māori at MRLF meetings. The regional council has started a cultural

education programme with cultural awareness training and a wānanga held for senior management at a marae. In addition, the MRLF has agreed to hold one of their Forum meetings on marae in 2014. One of the interviewees suggested that the strengthening of the voice should be better reflected in the diagram, for example by giving the timeline more emphasis or an upward trend at the long-term end of the time continuum.

The aspect of iwi versus hapū voice was covered in line with the practices of the four different groups, i.e. the preference to use one over the other was reflected in the replies. One of the Te Kāuru representatives made the point that Te Kāuru would prefer to see the sequence 'hapū/iwi' rather than 'iwi/hapū' in all documentation. Two of the interviewees commented on the fact that iwi/hapū had come together in the interest of the river and had agreed to put their differences aside. Another commented that the iwi/hapū names had been removed from the tasks in the action plan because the cause was bigger than individual iwi or hapū.

With the exception of one interviewee, who strongly disagreed, the power of Te Karanga a Te Awa (The Call of the River) to unite iwi/hapū in action was seen to have potential. One person referred back to the conversation at the first Kaupapa Day in 2011: "... I said, what does it tell you (the voice of the river)? No fish today – that's what it is and the trees don't rustle and the birds don't sing and they all tell you something – there are no birds, there are no trees". Another comment was that there are hardly any marae left in locations close to the river. Most had to move away, and thus the connection between people and the river is becoming less strong. This was linked by another interviewee with the concept of manaakitanga and the need to think about what voice should be raised – a negative voice, moaning and groaning about what is going wrong, or a voice that is promoting and building the mauri, expanding the value of manaakitanga and freshwater management.

### **9.1.2 Feedback on Values and the Language Used**

There was agreement on the use of kaitiakitanga and tino rangatiratanga in the framework. One comment was that they both had to be presented in any framework that concerns the governance of freshwater or natural resources in general. It was suggested that tino rangatiratanga should possibly carry more weight in the diagram, given that the right to tino rangatiratanga had been ignored for more than 100 years. Another comment was that it is really about acknowledgment from others, about being validated: "you know when we can stand on the same footing as everyone else".

As far as kaitiakitanga is concerned, the point was made that it is not perceived to be high on the agenda of Pākehā. Another comment was that it was good that the word 'kaitiakitanga' was used rather than kaitiaki only. A recent example showed how the deeper meaning of Māori words can change as Māori get caught between government interpretations and the real meaning. In the case of recent fisheries regulations, the term tangata te kaitiaki was used, which has resulted in a lot of people calling themselves kaitiaki without having the cultural 'right' to do so.<sup>121</sup> Another comment was made on the need for resources to exercise kaitiakitanga: "Without resourcing, you'll get the odd soldier on guard all the time – they are doing nothing else and do a good job, but how do they connect it to people who are resourced, who can then do the promoting of those values?" Another participant observed that the bulk of the funding from the Fresh Start for Fresh Water Fund had actually gone to the polluters. This sent a strong message that polluters get rewarded. The question is – what has the funding done to the river?

Whanaungatanga was generally accepted as a value. One comment was that it is the process to go through to build relationships. Another stated that it is reflected in the way people describe the mountains and the river and how various places are personifications.

Tui, tui, tuia solicited several comments as it is a less commonly used concept. One interviewee stated, "Tui, tui, tuia is what I am struggling with – you wouldn't hear that every day – are we only assuming we are talking – what are they hearing – are they hearing what we are talking?" Some of the discussion concerned the exact meaning of the expression. It was pointed out that it can't be used in the context of working together. Instead it is more about networking. The actual expression for networking is ko tui, tui.<sup>122</sup> Ultimately, the words stand for 'binding together'. It was suggested that there needs to be more focus on what is needed to bind together and how to be able to measure the outcomes.

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<sup>121</sup> A similar misuse of the work occurred in the original RMA. Kaitiakitanga was misrepresented as a concept of stewardship, which is not a Māori concept. In addition, the RMA implied that kaitiakitanga was not limited to tangata whenua, but could be exercised by anybody. This view was upheld in an Environment Court decision in 1994 and ultimately led to an amendment of the RMA in 1997 that redefined kaitiakitanga as guardianship and limited its exercise to tangata whenua (Dalziel, Matunga, & Saunders, 2006).

<sup>122</sup> A tongue-in-cheek comment referred to the Tui Brewery at Mangatainoka (the Mangatainoka is one of the tributaries of the Manawātū) and the possibility to 'bond and bind' over a 'tui'.

Finally, there was a comment concerning the use of the word 'pou' in connection with the four values. Pou signifies a cornerstone in a building or the framework for a building. Using punawai (spring) or mangawai (tributary) was suggested instead, given that the framework for voice is about the 'voice of Māori' in freshwater management.

### **9.1.3 Feedback on Short-term Collaborations and Long-term or Intergenerational Planning**

With one exception, there was consensus on the need for voice in short-term collaborations and voice reaching out to future generations through long-term planning. One person was rather disillusioned about the ability of iwi/hapū to influence, given the actuality of overriding Pākehā agenda and solutions. Another liked the aspect of intergenerational planning because of its continuity; it was suggested to stretch the 100-year plan towards a 1000-year plan, reflecting the growth cycle of the slowest growing tree species in the region.

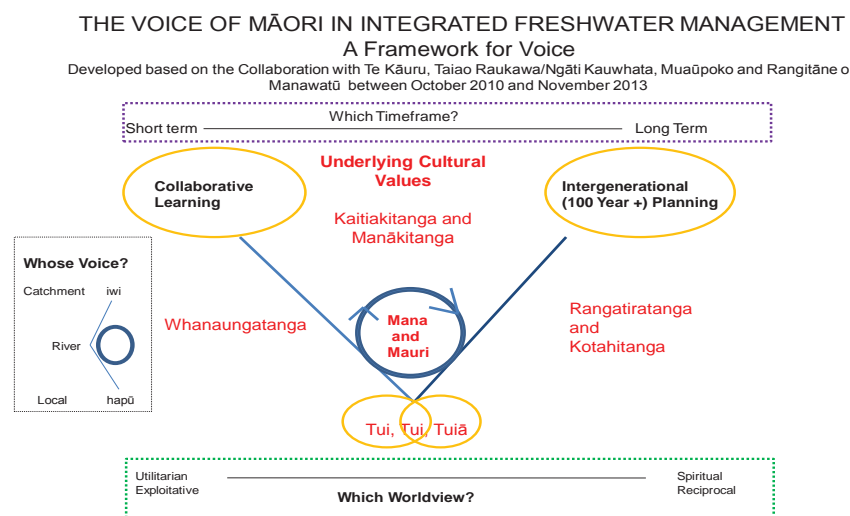
Another comment highlighted the multitude of potentially competing management plans managed by different authorities. River or catchment management falls under regional councils, fishery plans under the Ministry for Primary Industries. The two are not coordinated. Regional councils sign responsible for the development of farm plans in partnership with willing farm owners. These farm plans address land use and related sediment and nutrient loadings. District and city council plans include urban water infrastructure and sewage treatment. Business plans concern long-term investments, including potential discharges of waste water. In addition there are iwi management plans and voluntary action plans such as the MRLF Action Plan. Overall there is little coordination and there is a need for iwi/hapū to engage with multiple parties if a proactive approach is to be taken.

### **9.1.4 Feedback on Visual Presentation**

With one exception, all interviewees commented on the visual presentation of the framework. General consensus was that the version presented in Figure 9.1 was too busy and wordy. One suggestion was to increase the size to make it more readable. Others suggested simplifications. A simplified version was developed after the second interview and shown to the remaining three interviewees after they had seen the first version. The simplified version is depicted in Figure 9-2. Mauri and mana were moved back from the worldview continuum to the centre of the circle in the 'V' for Voice to give it more focus.

Manaakitanga and kotahitanga were added and connected to kaitiakitanga and tino rangatiratanga respectively. These additions were made based on the discussions during the last round of river management planning hui. They were removed again in a further simplification shown in Figure 9-3. The reason for removal was that they are implicitly linked with the two concepts of kaitiakitanga and tino rangatiratanga, as are other values not explicitly stated in the diagram.

Three interviewees asked what the '30–30–30' (the reference to council planning cycles) in the first diagram was about. In the ensuing dialogue it was agreed that the detail on timeframes was irrelevant as today's planning regime could change any time.



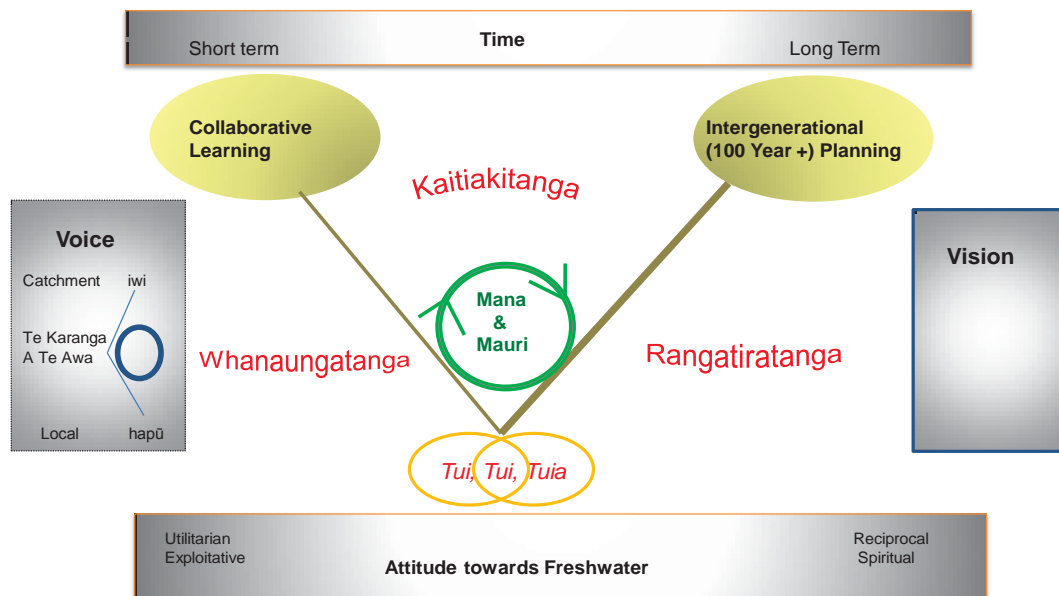
**Figure 9.2 Adaptation of Framework for Voice after the Second Interview**

Other feedback concerned the graphics. It was suggested that some dynamic was needed in the timeline to show how the voice is strengthened over time. For one participant the power of the diagram was in the 'mana and mauri' at the centre of the 'V'. It was suggested that these should be made more prominent and that the boxes around the worldview and time continua should be replaced with a colour band. Figure 9.3 shows the adapted version.



## THE VOICE OF MĀORI IN INTEGRATED FRESHWATER MANAGEMENT

### A Framework for Voice



V for Voice

**Figure 9.3: Final Modification of Framework for Voice**  
**Source:** Based on Feedback from All Interviews

It is proposed to present the framework to a wider audience, including non-Māori stakeholders, and seek feedback on its usefulness. As mentioned above, this is out of the scope of this research programme.

The next section of this chapter provides a summary of the contributions made by the research.

## 9.2 CONCLUSIONS – WHAT THE RESEARCH IS CONTRIBUTING

Overall, the case study contributes to Ecological Economics research in two ways: first, it adds to the understanding of cultural aspects in integrated freshwater management; second, it contributes to methodological aspects of cross-cultural and trans-disciplinary research. The following presents a summary of the key contributions. It starts with the specific ‘Verstehen’ of the voices of Māori that the case study adds to the wider literature. This is followed by a step-by-step description of the practical application of the framework for voice. A brief discussion of methodological suggestions for research in cross-cultural and trans-disciplinary research based on insights from the case study is next. The chapter concludes with a proposal for further research into the usefulness of the framework for voice and how this can potentially support the changing of conversations in freshwater management. ‘Te Karanga a Te Awa’, the call of the river, leaves the reader with an invitation for a new conversation.

### 9.2.1 Contribution I: ‘Verstehen’ – Understanding the ‘Voice(s) of Māori

As outlined in Chapter 3, ‘verstehen’ routinely takes place in the day-to-day context of the life-world as people constantly test new information and experiences against existing knowledge. Participants in the life-world tend to assume that their view of things is correct and shared by others. Contributions that don’t make sense in the expected way tend to get overlooked or discarded (Hitzler, 1988; Walsham, 2006). In social sciences research and the humanities a more deliberate process can be applied that explores objective, subjective and contextual levels of ‘verstehen’. The following is a summary of insights from this case study which explored the relevance and meaning of historical context, worldviews, cultural concepts, aspects of language, the concept of time, and tools to change existing understanding over time.

#### 9.2.1.1 *The Limitations of Every-day Understanding*

Chapter 4 contains insights concerning the voice of Māori from the IFS/MRLF workshops. The assumption that there is one voice of Māori proved untenable. There are many voices. The analysis in Chapter 4 shows that presence and active engagement in the conversation were prerequisites to being heard. Hearing the voices of Māori on one level resulted in the inclusion of the concepts of mauri and mana, a description of the river as a life form in its own right, and whakataukī in the MRLF Action Plan. The restoration of mahinga kai sites and protection of wāhi tapu sites are contained in the action plan.

However, the voices were not understood at a deeper level. A number of contributions made by iwi/hapū participants were not captured on the whiteboard or in the main body of the action plan as they appeared to be contributed out of context. Iwi/hapū participants were acutely aware of not being heard, so were the facilitators. A special session for iwi/hapū participants to bring their voices to the fore did not advance the voice. Some workshop participants shared these observations in their feedback during the mid- and post-workshop surveys.

Observations during the subsequent process of funding and implementation provided more examples of the challenges in making the voices understood. This concerned, for example, an appreciation by non-Māori of the limited scope of volunteer capacity and an expectation by iwi/hapū participants that more funding from the Fresh Start for Fresh Water Fund should have been allocated to iwi/hapū projects as described in Chapter 5. This expectation can be seen to be founded on the partnership principle in the Treaty expressed by tino rangatiratanga and the concept of utu or reciprocity.

The observations from the first two phases of the case study demonstrated that the every-day process of understanding in a life-world context, in which participants compare new information and experiences against their existing understanding of the world, was not sufficient to understand a different concept of the world.

#### ***9.2.1.2 Making the Implicit Explicit – Understanding Concepts of the Māori Culture***

The meaning of the either completely missed or disregarded contributions made by iwi/hapū participants during the first two phases of the case study has its roots in a different understanding of the world, as discussed in Chapter 7. Figure 7.9 contributes a much simplified ‘Weltansichten’ or worldview quadrant as the fundamental conceptualisation of the western and Māori ‘Verstehen’ of the world. An understanding of the need to manage complex, dynamic systems in the western world is contrasted with an understanding of living relationships requiring reciprocity and working with nature by Māori. A perceived right to exploit natural resources is contrasted with the need for respect and mauri/mana enhancing use of resources. Given the discussion in Chapters 2 and 7 that the worldviews, and therefore potentially the worlds they represent, of western society and Māori are distinctively different, with many variations on an individual level, the worldview continuum needs to be understood as a multi-dimensional construct. The continuum in this study relates to one level only – that of managing freshwater or relating to freshwater in a day-to-day context.

Feedback on the framework for voice by IFS participants supported the choice of at least three of the values presented in the framework. Tino rangatiratanga and kaitiakitanga are fundamental to any involvement of iwi/hapū in resource management. The discussion in Chapter 7 touched on the existence of a resource management approach captured in kaitiakitanga. Kaitiakitanga should be understood as respectful use of natural resources in order not to exceed their re-generational capacity. Tino rangatiratanga, the right to self-determination, is granted in the Treaty of Waitangi. Whanaungatanga captures the process of building relationships across people and with nature. Tui, tui, tuia, not a concept used widely, offers a challenge to find new ways to bind practices together to achieve desired outcomes without compromising the essence of the parts. Thus, the sum of the parts becomes greater than its parts, as demonstrated by lashing together the parts of a canoe.

The historical context was shown to be important in the process of ‘verstehen’ (see chapters 4 and 7) as worldviews, concepts, and the language used to describe them, change over time. As Royal (2007) points out, Māori are not captives in a pre-European contact worldview. It has become obvious that there is not just one worldview of Māori, but many. They belong to three eras – the pre-colonial era, the era of settlement and colonisation, and modern times – which see an evolution of worldviews in a context that is more open to accepting the intent of the Treaty of Waitangi (Royal, 2007).

The roots of cultural concepts and worldview in general go back in time in the form of what Fleck (1935/1979) described as proto ideas. The discussion of the Māori worldview as the cultural concept from which to understand iwi/hapū or individual action in Chapter 7 also showed links to the western culture. The parallels between the Māori worldview as portrayed by Rev. Māori Marsden and that of the new physicists suggests a potentially deeper level of understanding as more concepts become accessible through dialogue.

### **9.2.1.3 *Verstehen from the Inside***

As outlined in Chapter 3, limiting ‘verstehen’ to the conceptual level only addresses the analytical, quasi-objective aspect of understanding. Experiencing the concepts by participating in the decision making and actual application provides a deeper or more experience-near level of understanding, while stopping short of putting oneself in the skin of people themselves. Understanding in cross-cultural collaborations can grow over time as participating in a new way of doing things becomes more intuitive. The

different ways of perceiving and experiencing the world offer an opportunity for creating another approach in the relationship with nature – one that considers nature’s rights in a reciprocal way. “To salve the world’s wounds demands a response from the heart” – this is the secret of the new movement that is now regenerating organically, without a single leader, but with a multitude of people coming together to address the wrongs in our environment and societies (Hawken, 2007, p. 188).

Insights from participating in the decision making and planning of Te Kāuru are captured in Chapters 5 and 6. The wānanga for the RMPF, in particular, highlighted a relational connection between people and the river. This connection puts the relationship with the river first and economic benefits from the river last. Economic benefits are an outcome of good relationships with the river rather than the exploitative drivers in the relationship. The collaboration with Te Kāuru also showed the importance of following tikanga in involving hapū in decision making.

#### **9.2.1.4 Another Concept of Time – Change Over Time**

Working with Māori requires a commitment not to make time the critical path in the collaboration. Time in a Māori context is not of the essence, as it is in the western world. One has to learn not to make time the driver but to let events unfold in line with tikanga – there is a logical chronology of how events have to unfold. While the actual task might only take very little time, the lapse time between tasks can be very prolonged as people also juggle many responsibilities and have to make a living as well. Being on ‘Māori time’ is not an expression of laziness, as many might think, but rather an expression of too many things going on at the same time. At least this has been the case with the many people who participated in this case study. Better funding might well be one way to shorten time lapses.

Chapter 8 provides a discussion of the time it takes to influence thought collectives and thought styles. It argues that as short-term collaborations can only have a limited impact on changing thought, they need to be complemented by long-term, inter-generational planning. A pan-iwi/hapū collective management approach to the Manawatū has the potential to strengthen the position of iwi/hapū in the interest of the river. However, for a multitude of reasons, including the pending Treaty Settlement process and lack of resources, it has not yet eventuated. In the Motueka Catchment a collective iwi management forum formed after 6 years of collaboration (Fenemor et al., 2012).

### **9.2.1.5 Achieving Deeper Levels of Listening to the Voices of Māori**

The insights from the process of ‘*verstehen*’ suggest that in collaborations that do not appreciate the existence of another view of the world, listening will most likely be limited to the down loading and debating levels in Scharmer’s taxonomy of listening (see Chapter 8). The appreciation of the existence of another way of viewing the world and an understanding of the conceptual levels, however, can potentially lead to a more reflective approach to listening. Experiencing the concepts in action through participating in a *kaitiakitanga* approach to freshwater could possibly lead to generative dialogue or what Durie and Royal call creativity and innovation at the interface (Durie, 2003; Royal, 2007).

### **9.2.2 Contribution II: Framework for Voice as a Practical Guide Towards Understanding in Cross-cultural Collaborations**

On a practical or applied level, the research contributes the framework for voice as discussed in Chapters 7–9. The framework is based on the insights described under Contributions I. It should be used as a guide for Māori and non-Māori participants engaging in cross-cultural collaborations to work towards a better understanding of the voices of Māori in the spirit of the Treaty. It should also raise awareness about the potential time frames required for change, and what kind of tools might help make the voices heard in the process. It is proposed to work through the framework as follows:

*Voice: the goal of increasing mauri and mana:* Central to the framework for voice is the idea to increase mauri and mana over time. The discussion in Chapter 7 has shown how the two are inherently linked with each other and the voices of Māori. In the case of the Manawatū case study, the link is visible in the goals of the MRLF Accord. Increased mauri can lead to increased mana (of the river and the people), and vice versa. Royal’s vision to see mana as an alternative to traditional power in influencing decision making (Royal, 2007) suggests the possibility of leading through innovation and achievements.

*Voice: Understanding who is speaking:* The discussion in Chapter 7 showed the need to understand the voices in the room in a historical as well as contemporary context. The historic context will provide an insight into rights and status of the *iwi/hapū* present in a region at various points in time. It thus provides the context for pan-*iwi/hapū* relationships. The contemporary context will shed light on intra-*iwi/hapū* relationships and the affiliation of speakers with tribal or institutional entities. The voice or call of the river was identified as a voice with the potential

power to unite kaitiaki along the river in their efforts to increase the mauri and mana of the river. Approaching collaborations from the perspective of the river may offer an opportunity to change conversations.

*Understanding the underlying worldviews and commonly shared values:* The second step is to establish the spectrum of worldviews represented in the spectrum of voices. This understanding will provide the context for commonly shared, as well as iwi/hapū specific, values expressed in contributions to the dialogue. The discussion in Chapter 7 suggests that worldviews are often taken for granted and not made explicit (Molenaar, 2006). While the differences between worldviews can be seen as negative, they can also be seen as an opportunity for creativity (Cheung, 2008; Durie, 2003; Royal, 2007) in cross-cultural interaction. Looking for solutions from a range of worldview positions has the potential to create innovative solutions at the interface between thought collectives and thought styles contained in the worldviews.

*Choosing tools for short-term collaborations:* The choice of tools to facilitate the dialogue is likely to have an impact on outcomes. The insights from the case study led to a brief examination of a small selection of tools to support cross-cultural dialogue in Chapter 8. Hui, wānanga, and hīkoi are Māori tools that encourage dialogue in a Māori setting. Mediated Modelling provides a platform for solutions development in response to complex or wicked problems. Appreciative Inquiry and Tipu Ake ki te Ora build on existing strengths and encourage participants to work towards what could or should be, an intergenerational vision. These tools can be seen to be complementary and all can be applied in a cross-cultural situation. Based on the insights of the case study, an alternation between tools might help strengthen collaborative learning. Alternative tools not mentioned above should also be assessed for their ability to foster a deeper understanding in the dialogue.

*Intergenerational planning and vision:* Observations from the case study suggest that the scope to influence in short-term collaborations is limited. A discussion of Fleck's thought collectives and thought styles and how they gradually change over time was used to make a case for intergenerational planning and vision. An intergenerational vision needs to be timeless, such as the vision adopted by the MRLF, "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". A timeless vision allows to



work towards a state of well-being rather than prescribing a specified set of material outcomes.

In its totality the use of the framework for voice should help make the implicit explicit and thus advance understanding in cross-cultural collaborations.

### **9.2.3 Contribution III: Post Normal Science and Trans-disciplinary Research in a Cross-cultural Context**

The following contribution is contained in an open-ended question that remains after considering the epistemological and methodological options available in trans-disciplinary research. As implicitly shown in Chapters 3 and 7, trans-disciplinary research seeks to develop a broader, more holistic level of ‘*verstehen*’. It provides an opportunity to describe and understand the whole within which participants from the life-world and individual disciplines provide more detailed knowledge of the parts. This opportunity poses multiple challenges. There is not only a need to translate between disciplines, but also a need to translate between the worlds of participants from the life-world in order to create meaning in the context of different views.

While writing Chapter 8, and exploring different tools to facilitate dialogue towards solutions, another aspect of the interaction between so many voices presented itself. It suggested that there is a difference in looking for solutions from a basis of complex problem-solving as opposed to a basis of strength and the possibility of what could or should be. If thinkers like Bohm are correct, the focus on problems in dialogue is likely to attract more problems (Bohm, 1996). If this holds true, then the reverse might also hold true: building on the positive – that is on strengths and *mana* – can lead to increasing both strengths and *mana*.

This leads to the question of why trans-disciplinary research methods appear to focus on solving complex problems.

### **9.2.4 Contribution IV: Proposal for Further Research Based on Insights from the Case Study**

Contribution IV has been developed in response to some of the limitations of this research. In the main, the research outcomes are limited as they are based on one case study only. The case study and ensuing discussion were written from my perspective and based on my level of ‘*Verstehen*’ at the time of writing. Therefore, the research can only hypothesise the applicability of the framework to other cases. The

same applies to the question whether conversations held in a different cultural setting can change outcomes.

Listening to and understanding another worldview do not necessarily require 'conversion' and/or denial of one's own worldview. Every worldview makes an assumption on the 'state of nature'. The upholding of the so-called modern thought is conditional on the assumptions being correct. Indigenous people have a right to reject the assumptions made by western cultures if they believe that they are unfounded (Daes, 2000; Smith, G.H., 2000). The reverse also holds. The dilemma of integrated freshwater management in New Zealand and the voices of Māori is one of tentative, Treaty-based, partnership between two cultures anchored in distinctively different worldviews.

Collaboration in this space can be seen as an opportunity to imagine how things could be different if one could take a step back. It is about mutual respect and about engaging in a new conversation (van den Belt & Schiele, 2012; Schiele & van den Belt, 2012). In such a relationship listening would not only happen at the superficial levels of down-loading and debate. Rather, participants would learn to engage in increasingly more reflective and generative levels of dialogue, in line with Scharmer's taxonomy of listening (Scharmer, 2009). Further research is proposed to build on two aspects from this study: 1) the usefulness of the framework for voice, and 2) the possibility of changing conversations by approaching challenges from a variety of positions on the worldview continuum.

#### **9.2.4.1 Proposal 1: Establishing the Usefulness of the Framework for Voice**

The first proposal is aimed at establishing the general usefulness of the framework for voice in creating awareness and deepening understanding of the participating voices and the cultural concepts applied in cross-cultural collaborations. In a first step it is proposed to share the framework with other iwi/hapū, councils, and other agencies engaging in cross-cultural freshwater management activities. In the first instance a simple questionnaire could establish the preparedness of applying the framework, answering the question:

- Which aspects of the framework appeal? – Why do they appeal?
- Which aspects do not appeal? – Why don't they appeal?
- What is missing?
- Would you be willing to use the proposed framework? If not, why not?
- In what context would you be prepared to use it?

In a second step it would be appropriate to get feedback from those who have applied it:

- In what context was the framework used?
- How was the framework useful?
- How could it be improved?
- Would you use it again? – If not, why not?

#### **9.2.4.2 Proposal 2: Creating Deeper Meaning by Changing Conversations**

The second proposal for further research is about exploring the question: How, if at all, do outcomes change when changing the conversation from one cultural concept into another?

Building on the idea of experience-near and experience-distant levels of understanding (Wikan, 1991), it is proposed to create an opportunity for an experience near engagement for non-Māori by collaborating in a Māori-led initiative.<sup>123</sup> This research idea is based on my personal wānanga experience, which brought the theoretical cultural concepts alive. Table 9.1 outlines the general idea of moving participatory collaborations engagement for non-Māori from an experience-distant participation model to an 'experience-nearer' model, i.e. from a western into a Māori setting.

The underlying assumptions are:

- If participants can widen their day-to-day understanding of another culture, they can put contributions into context and recognise them as such
- This approach can, over time, move dialogue from a downloading/debating level to the deeper level of reflective and generative dialogue

The proposal is to have the same group of participants alternate between the two cultural contexts. Ideally, the group would have equal numbers of Māori and Pākehā. Participants need to come with an open mind and be prepared to collaborate in the two cultural settings. It is proposed to have quarterly workshops over a 2-year period:

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<sup>123</sup> Dr Huhana Smith follows a similar approach by engaging with landscape architecture students in the design of kaitiaki-led coastal dune and wetland restorations. Students get the opportunity to attend wānanga and participate in hīkoi to gain a different appreciation of the landscape as seen by Māori.

Cross-cultural Participation Mode I Western Approach	Cross-cultural Participation Mode II Mātauranga Māori Approach
Experience-near for westerners  Experience distant for Māori (potentially less, given that Māori are more integrated into the western way of life than westerners are in the world of Māori)	Experience-near for Māori  Experience distant for Pākehā
Participating within the western cultural concepts	Participating within the Māori cultural concepts
Western led	Māori led
In a western setting	In a Māori setting
Deploying a western approach to facilitating the dialogue	Deploying a Māori approach to facilitating the dialogue

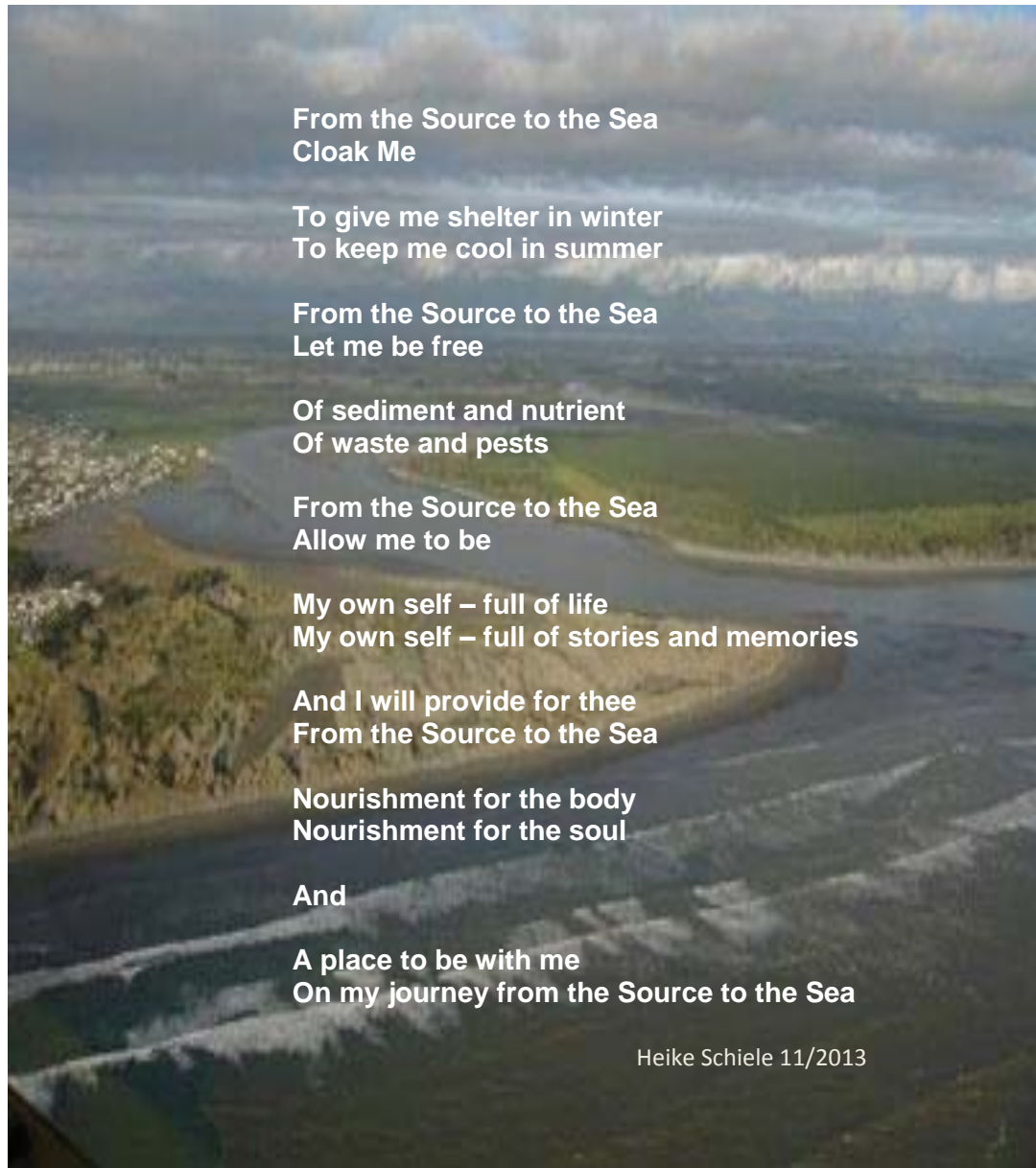
Last, let me suggest to make the call of the river as captured in Figure 9.4 the call for further action. The poem ‘came to me’ in November 2013 as I attended the hui which were aimed at producing the joint value statement for the RMPF (see Chapter 6). All the sudden, reflecting on the many voices I had listened to over the 3-year period, including that of the Manawatū River, it appeared to be so very simple.

And yet again when I shared the poem with Maūpoko, Robert and Marokopa added another level of aroha (compassion, love) and understanding which is captured in Figure 9.5 as Version II of the poem.

## The River

Te Karanga a te Awa

A Plea – From the Source to the Sea



**Figure 9.4: Te Karanga a te Awa**

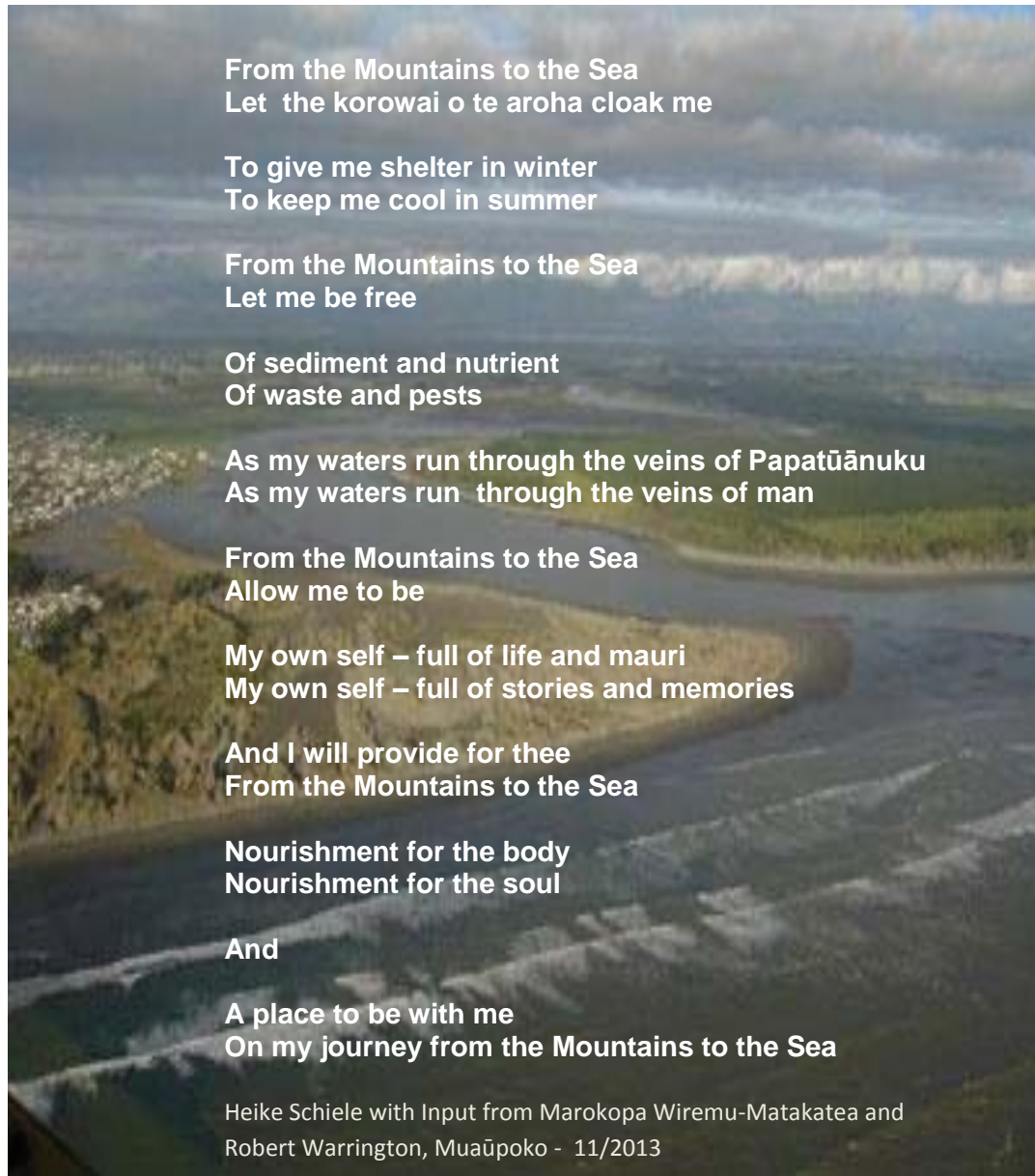
**Source of Photo:** Horizons Regional Council Website – The Manawatū

**Source of the inspiration:** The many people who have generously taught me over the three years of my research - from the source to the sea: people from Te Kāuru, Ngāti Kauwhata and Ngāti Raukawa, Rangitaane O Manawatu and Muaūpoko. But the inspiration also came from two wild rivers at opposite ends of the world and yet connected – the Neckar and the Manawatū.

## The River

Te Karanga a te Awa II

A Plea – From the Mountains to the Sea



**Figure 9.5: Te Karanga a Te Awa – Version II**

**Source of Photo:** Horizons Regional Council Website – The Manawatū

**Source of the inspiration:** The many people who have generously and patiently taught me over the last three years to listen with all my senses. People from Te Kāuru, Ngāti Kauwhata and Ngāti Raukawa, Rangitāne o Manawatū and Muaūpoko. But the inspiration also came from two wild rivers at opposite ends of the world and yet connected: the Necker and the Manawatū.

**This version is dedicated to Muaūpoko, Robert, Marokopa and Kerehi.**



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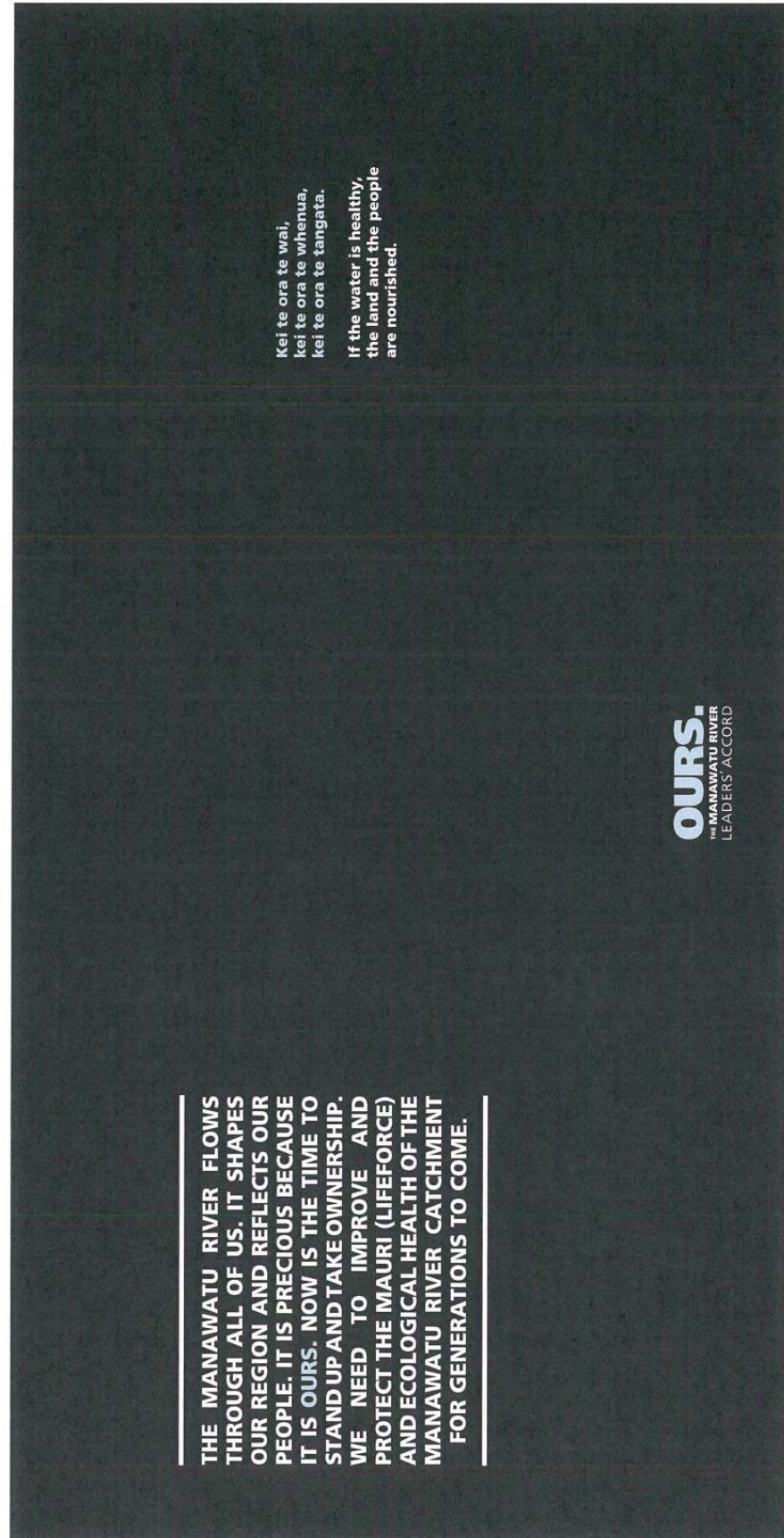
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## APPENDIX 1 – MANAWATU RIVER LEADERS' ACCORD



## BACKGROUND

Early in 2010 the chairman of Horizons Regional Council invited key leaders with an interest in the Manawatu River to meet and discuss the state of the river. The leaders represent those sectors and groups that have an impact on or interest in the river: local government, iwi, farming, industry and environmental.

The leaders agreed that the state of the Manawatu River is unacceptable and the community wants it "cleaned up". Leaders decided to continue to meet as a leaders' forum and to set goals that will guide a community-wide process of improvement.

The forum's focus was agreed: the whole of the Manawatu River and its tributaries. A vision and overarching goal was decided, and key supporting goals and commitments were made, guided by a set of principles.

Together the focus, vision, goals, and commitments form an accord between the leaders. It represents a high-level commitment to take action to improve the state of the Manawatu River and to do it in a collaborative way that recognises the Treaty of Waitangi. The accord acknowledges iwi and hapu as indigenous peoples, and the range of interests and values connected with the river. In recognition of its significance the leaders have signed this accord and will champion and give life to it.

## OUR FOCUS

Our focus is:

- The whole of the Manawatu River Catchment as it affects the mauri (life/force) and ecological health of the Manawatu River and its tributaries.
- To take ownership of the issues and their solutions.
- The rehabilitation and protection of the health and well being of the Manawatu River Catchment for future generations.

## OUR VISION

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 are nourished.

## OUR MAIN GOAL

Our goal is to improve the Manawatu River, the mauri (life/force) of the Manawatu River Catchment, such that it sustains fish species, and is suitable for contact recreation, in balance with the social, cultural and economic activities of the catchment community.

This goal represents a community opportunity to develop leadership in catchment improvement and capture the social and economic benefits of such leadership.

## GOALS

1. The Manawatu River becomes a source of regional pride and mana.
2. Waterways in the Manawatu Catchment are safe, accessible, swimmable\*, and provide good recreation and food resources.
3. The Manawatu Catchment and waterways are returned to a healthy condition.
4. Sustainable use of the land and water resources of the Manawatu Catchment continues to underpin the economic prosperity of the Region.

## ISSUES

We note that the Manawatu River flows through a developed landscape that provides important social, cultural and economic benefits.

However, we acknowledge that the community has concerns and has identified that the river is in a poor state. It has been described as dirty, lacking life and culturally compromised.

We understand that people living in and around the Manawatu River want to be able to appreciate and enjoy the river by swimming in it, taking food from it, using it as a water source and protecting its cultural values.

## COMMITMENT WE WILL

1. Establish a collaboratively owned and implemented Action Plan by March 2011 ready for implementation by 1 July 2011 that will recommend targets for improvements, timeframes for achieving the targets, identify actions and opportunities, and include indicators and methods of monitoring.
2. Work together positively and collaboratively towards achieving our goals and realising the vision.
3. Keep the community informed of our goals and progress towards them.
4. Advocate for our vision and goals.
5. Meet as a leaders' forum at least twice a year to receive reports on progress and provide guidance to those implementing the Action Plan.



\* Having that same parts of the catchment, by the river banks, are not safe for swimming.

## APPENDIX 2

### MANAWATU RIVER UPDATE

#### 8TH JUNE 2010

Iwi representatives from Rangitaane, Ngati Raukawa and Ngati Kauwhata met recently to discuss constructive and positive measures for improving the quality and maintaining te mauri o te awa Manawatu. The Iwi caucus then prepared four (4) high level goals, objectives and timelines to achieve these goals and tabled them at a Manawatu River workshop held on 3rd May 2010 at the Chalet Complex in Palmerston North.

They were as follows

<b>Proposed Cultural Goals from Iwi to Improve the State of the Manawatu River. Delivered on Monday 3rd May 2010</b>			
<b>GOAL</b>	<b>ACTIONS</b>	<b>TOOLS</b>	<b>TIMELINE</b>
1. Maintenance of Spirit of <b>Okatia</b> – eponymous ancestor and known as “te taniwha o te awa”	<ul style="list-style-type: none"> <li>• Developing programmes to enhance the mauri of the River.</li> <li>• Development of a Cultural Health Monitoring Tool to measure and address the cultural health of the river.</li> <li>• Developing timeline for improving discharge qualities into the River.</li> <li>• Encouraging higher levels of responsibility with regard to section 6 (e) of RMA Act.</li> <li>• Absolute protection of waahi tapu in perpetuity.</li> <li>• Iwi Participation in discussions around freshwater allocation and ongoing management.</li> <li>• Better TLA Collaboration in discharges to the River.</li> </ul>	Iwi/hapu values and decision making processes.	3-5 years
2. Enhancement and re-establishment of cultural areas of significance e.g.; mahinga kai	<ul style="list-style-type: none"> <li>• Identification of areas of cultural significance.</li> <li>• Identify threats/decline issues in respect of significant cultural areas.</li> <li>• Identification of x number of cultural areas to be restored.</li> <li>• Increasing access to the River e.g. for swimming / waka ama.</li> <li>• Practising of Iwi Protocols e.g. Rahui.</li> <li>• Collaboration with other Agencies/Groups undertaking restoration</li> </ul>	<ul style="list-style-type: none"> <li>• Using GIS System with levels of classification.</li> <li>• Contestable Maori Fund established by LTA's and Regional Council for projects.</li> </ul>	3-5 years.





### APPENDIX 3

## THE VOICE OF MĀORI IN INTEGRATED FRESHWATER MANAGEMENT – HOW THE CASE STUDY UNFOLDED FROM THE PHD PERSPECTIVE

Time	External Events Impacting on the Research	MRLF – Voluntary Collaboration sponsored by Horizons Regional Council (HRC)	IFS – Action Research conducted by EERNZ	Key Insights Informing the Thinking behind the Dissertation	PhD specific Cross- cultural Research - Working with Te Kāuru
<b>2009</b>	Manawatū – worst river in western world – the Cawthron Report  Government – Fresh Start for Freshwater Land and Water Forum		Expression of interest to Foundation of Research, Science and Technology –  HRC is the key supporter	Background Reading on Freshwater – first contact with EERNZ – then known as NZ Centre of Ecological Economics	
<b>2010</b> Jan – June	Iwi 'haka' their way into Manawatū River Leaders' Forum (MRLF)	Development of Manawatū River Leaders' Accord	Hui in Levin 5/02 Application for funds Incl. three iwi sub projects  Funding obtained	First contact with participating iwi/hapū – realisation that there are tensions in regards to collaboration with each other and as part of formal research	Establishment of Te Kāuru In April 2010
July	Federated Farmers publish 'Peoples Accord' and decide not to sign MRLF Accord	Manawatū River Leaders' Accord signed			
August		Decision to collaborate with IFS	Decision to collaborate with MRLF		
October	Local Body Elections – HRC Chairman not re- elected, loss of sponsor	Pre-Workshop Questionnaire First workshop – 20/21 October Co-facilitation – MM – Action Planning		Official Start of PhD: The suitability of Mediated Modeling as a tool to give Māori voice in Integrated Freshwater Management	
November		Second workshop – 25 November			

Time	External Events Impacting on the Research	MRLF – Voluntary Collaboration sponsored by Horizons Regional Council (HRC)	IFS – Action Research conducted by EERNZ	Key Insights Informing the Thinking behind the Dissertation	PhD specific Cross-cultural Research - Working with Te Kāuru
December		Co-facilitation – MM – Action Planning  Third workshop – 13 December Co-facilitation – MM – Action Planning Political voice changes direction of workshops Midpoint Questionnaire		Introduction to Ngāti Kauwhata From the mountains to the sea + Water bodies = veins and organs in body (Marokopa) Cloaking the river (Michael) All we want is respect (Robert) Iwi contributions appear out of (western) context Iwi/hapū are struggling to be heard	
2011 January	New HRC Chairman resigns	Fourth workshop – 27 January MRLF facilitation – action planning Iwi participants stand up to be heard			
February	Bruce Gordon elected as new HRC Chairman	Fifth Workshop – 24 February MRLF facilitation - action planning Iwi participants get opportunity to present their cultural values		Opportunity missed for iwi/hapū to move beyond cultural statements already made in Accord process	
March	Cabinet approves Fresh Start for Freshwater Fund based on LWF recommendations	Sixth workshop – 24 March MRLF facilitation – action planning		Hui-a-iwi opportunity to help with iwi actions – ongoing difficulties for iwi/hapū to nominate lead iwi/hapū in absence of Treaty settlements	
April		Seventh workshop – 7 April MRLF facilitation – finalising the plan  MRLF forum 15/4 finalises and signs off on proposed Action Plan – Fresh Start for Freshwater Funding opportunity first mentioned			

Time	External Events Impacting on the Research	MRLF – Voluntary Collaboration sponsored by Horizons Regional Council (HRC)	IFS – Action Research conducted by EERNZ	Key Insights Informing the Thinking behind the Dissertation	PhD specific Cross-cultural Research - Working with Te Kāuru
May	National Policy Statement on Freshwater	Post workshop Questionnaire		Discrepancy in perception of how well iwi were heard – what gives voice – hearing does not equal understanding or agreeing	
June		22 June – Official signing of Manawatū River Leaders' Action Plan at Foxton		The importance of relationship building (Robert)	
July				Data analysis on voice – presence sound-bites – distribution of actions – actions in adaptive management cycle	
August				Listening Schema – Theory U	
September	Ministry for the Environment – New Start for Freshwater Funding Application opens	MRLF delegates funding application process to HRC 12/09	Kaupapa Day 1 21/09 Value of Relationship building Action: Development of a catchment wide iwi/hapu river management strategy Integrating role of IFS Funding opportunity	Implications of funding criteria for iwi/hapū  <b>Reflection:</b> What kind of dynamic is upsetting the system – a reflection on comments made by participants regarding the marginalisation of iwi/hapū in the funding process The voice of the river Greetings, welcome to set scene <b>Time of/for not of the essence?</b> (Double spiral - 2 cultures JM)?	



Time	External Events Impacting on the Research	MRLF – Voluntary Collaboration sponsored by Horizons Regional Council (HRC)	IFS – Action Research conducted by EERNZ	Key Insights Informing the Thinking behind the Dissertation	PhD specific Cross-cultural Research - Working with Te Kāuru
October		HRC submits funding application – community funding only project with direct iwi involvement		PhD Confirmation	
November			Workshop 8 on Economics	<b>Tipu Ake ki te Ora workshop</b> – the role of vision in an alternative (project) planning framework. Project Management modelled on a life system – growing towards wellbeing	
December		MRLF Review Meeting 16/12		Realisation that the PhD research question had to move beyond MM as a suitable tool to give Māori equal voice. Exploration of alternative topics:	
<b>2012</b> January February March	Minister for the Environment resigns	MRLF Meeting 28/3 - \$5.2m funding for Manawatū, details yet to be finalised		<ul style="list-style-type: none"> <li>- A framework for performance measurement in Integrated Freshwater Management</li> <li>- Various process and capacity building approaches –</li> <li>- Changing conversations – changing outcomes – alternative facilitation approaches – incl. Future</li> </ul>	

Time	External Events Impacting on the Research	MRLF – Voluntary Collaboration sponsored by Horizons Regional Council (HRC)	IFS – Action Research conducted by EERNZ	Key Insights Informing the Thinking behind the Dissertation	PhD specific Cross-cultural Research - Working with Te Kāuru
April				Search, Scenario Planning, Open Space Technology and Appreciative Inquiry	
May					
June					
July		Hui-a-iwi – 18/7 Update on Funding Decision to develop river management planning framework		Iwi/hapū point out the irony in funding: funding was allocated due to good relationship with iwi/hapū, but no funding allocated to iwi led projects. Polluters get 'rewarded'	Invitation to join Te Kāuru leadership group
August		MRLF Forum 3/8 Funding allocated; Iwi to get 40% of community fund			
September				Written plans and maps don't connect for hapū members with the river Video draws people in to tell stories Plan needs to be developed in a way that it can be owned by hapū	Development of river management planning framework Te Kāuru RMPF wānanga: 4 Marae in 28 hours All building on each other's work Te karanga a te awa
October	Hundred year plan a valuable lesson – Dom Post 29/10			The opportunity of intergenerational (100 year) planning	Funding application I Parahaki Island

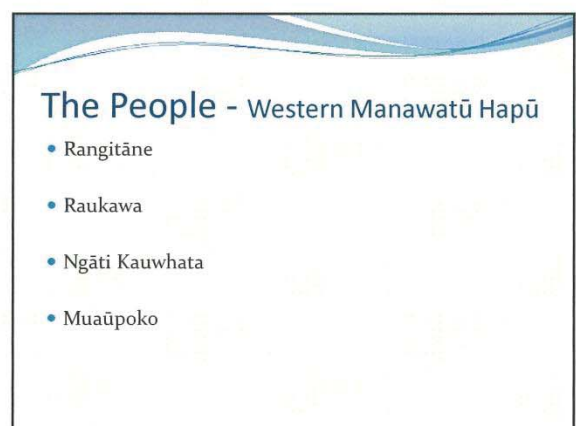
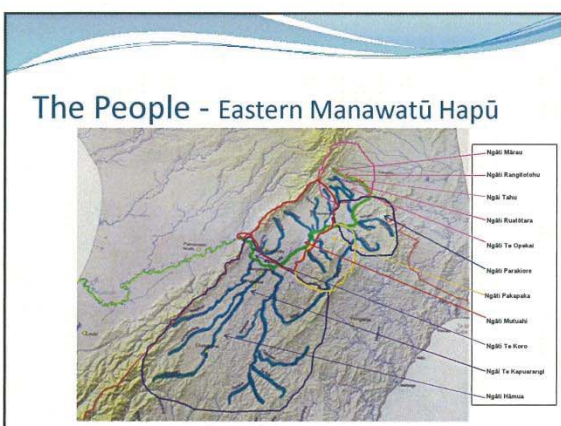
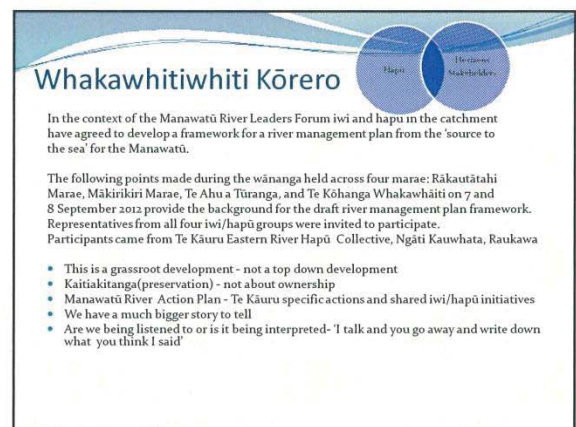
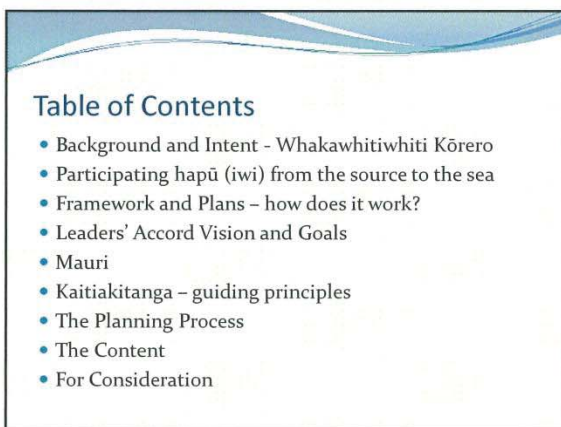
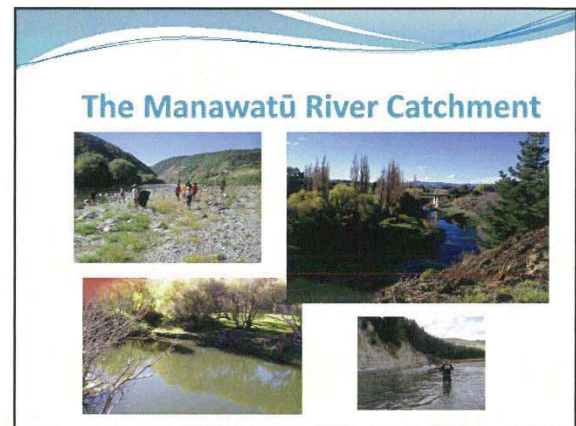
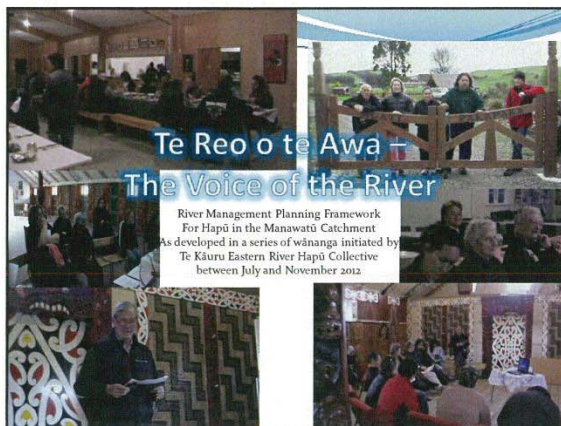
Time	External Events Impacting on the Research	MRLF – Voluntary Collaboration sponsored by Horizons Regional Council (HRC)	IFS – Action Research conducted by EERNZ	Key Insights Informing the Thinking behind the Dissertation	PhD specific Cross-cultural Research - Working with Te Kāuru
November		Hui-a-iwi 8/11 TK present river management planning framework Other iwi struggle to progress framework Community fund discussion – confusion about how much is available	Kaupapa Day II - 5/11 Update IFS sub-projects TK present river management planning framework Risk of building relationship with tools rather than river (Jenny) Presentation on PhD findings to date	Treaty was signed with hapū, not iwi (Hone)  Listening difficulties work both ways – see confusion re funding  Intergenerational planning is a an accepted concept – responsibility to future generations	
December		MRLF Forum meeting 7/12 Total of 19 funding applications, \$ 600k 10 have been selected, 5 of these are iwi led			NZFSS conference co-presenting with Jenny and Michael  Receive funding for Parahaki Island  Sign-off on framework at Rākautātahi and Makirikiri marae 13/12
2013 January February March			IFS/HRC review meeting – 5/3		Planning for pilot plan with Ngāti Parakioro Parahaki Island I clean up

Time	External Events Impacting on the Research	MRLF – Voluntary Collaboration sponsored by Horizons Regional Council (HRC)	IFS – Action Research conducted by EERNZ	Key Insights Informing the Thinking behind the Dissertation	PhD specific Cross-cultural Research - Working with Te Kāuru
April			Greatest contribution for HRC: development of iwi relationships		
May					
June					
July					
August					
September			6 June – workshop on Account-ability		
October					
November					
December					



## APPENDIX 4

### RIVER MANAGEMENT FRAMEWORK PRESENTATION





## Framework and Plans -

### How does it work?

- The framework will guide the river management planning process
- The intent is for river hapū to use this guide to develop their own plans
- The plans are living documents and will evolve over time
- The hapū plans can take whatever form – written – visual or other – that resonates the most with each hapū. They can be in Te Reo Māori or the English Language
- However, actions shared with non Māori landowners, community or agencies, etc. will be expressed in plain English
- Where there are no active hapū to develop a river management plan, an iwi or hapū collective may step into the role of developing a plan
- The plans' content will incorporate the themes identified during the wānanga on 7/8 September 2012: Te Karanga a te Awa - Kaitiakitanga



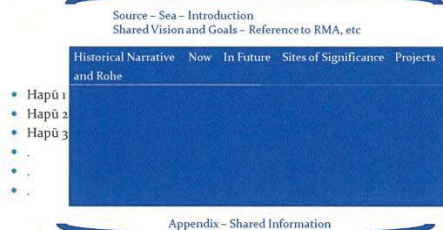
## Te Karanga a te Awa - Kaitiakitanga

1. Whanaungatanga ki te Awa – ā-whānau, ā-hapori
  - Rangatahi – ki te awa
    - Mātauranga
    - Pūtaiao
    - Waiata
2. Waiora
  - Whakaora
  - Iriri
  - Rongoa
3. Te reo o te Awa
  - Rauemi
  - Tātai kōrero
  - Whitiata
4. Te reo o te tangata
  - Waiata
  - Kōhanga/Kura Kaupapa
  - Kura Auraki
  - Kōrero tahi
  - Momo rākau
  - Mahi ngātahi
  - Rongoa
  - Mātauranga
  - Whakaako
  - Whāngai atu
  - Aroturuki
  - Matakite
5. Māra kai  
Mahinga kai } Pātaka kai

## Te Karanga a te Awa - Kaitiakitanga

1. Relationship to the river
  - family, community
  - youth – to the river
    - For education
    - To teach and learn science
    - Songs with historical reference
2. Living Waters
  - To heal
  - To initiate, baptise
  - For medicinal purposes
3. The river's voice
  - Educational resources
  - Historical narrative
  - Video
4. People's voice
  - Discuss together
  - Tree species for planting
  - Collaboration on projects
  - Medicinal focus
  - Education
  - Teaching each other
  - Sharing knowledge
  - Monitoring
  - Use of visionary people
5. Food Source Gathering } Foodstore
  - Songs
  - Kōhanga/Kura Kaupapa
  - Main Stream Schools

## Hapū Plans within the Framework



## Building on the Manawatū River Leaders' Accord

### The Vision

- Ki te ora te kāuru, ka ora te rere, ka ora anō te pūaha.
- If the source of the river is healthy, so should its collective flow, even to the sea.

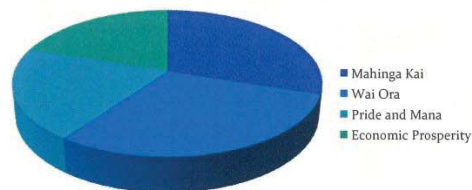
### The Goals

Each hapū to confirm or enhance the agreed goals:

- The Manawatū river becomes a source of regional pride and mana
- Waterways in the Manawatū are safe, accessible, swimmable and provide good recreation and food resources
- The Manawatū Catchment and waterways are returned to a healthy condition
- Sustainable use of the land and water continues to underpin the economic prosperity of the region

## Mauri an Indicator of Achievement

Mauri (To be further developed)





## Kaitiakitanga

Manawatū, manawa ora  
'waimate, wai kori, wai herehere, wai marama, waioira'

- This section will provide the fundamental kaitiaki responsibilities, to return the river to waioira, e.g:
  - **Keep all waste (solid and liquid) out of food producing water bodies**
  - **Where possible restore native vegetation and wetlands to cloak the river and provide habitat**
  - **Respect regeneration capabilities when collecting mahinga kai**
- Others to be added by hapū (or iwi where appropriate)
- Note: 'River' is not limited to the Manawatū itself, but applies to all its tributaries and smaller water bodies in its catchment

## The Planning Process



Ideally, each hapū (iwi) should have a 'keeper' (individual or group) of its Plan working with other hapū members on a regular cycle of revisiting the vision, planning, doing and reviewing of outcomes (think of a harvesting cycle for river action - align with Māori calendar - maramataka ?)

Each hapū (iwi) decides how much or how little goes into their Plan. Not everything that goes into the Plan will necessarily have to be shared with agencies or the wider public. The Plan is a living working document (or other medium such as video, GIS = Geographic Information System), it will change over time and sections can be completed as hapū members are ready and information becomes available. Short term activities /projects will provide valuable learning that can be reflected as the Plan evolves.

Collaboration with people outside the hapū might be required to achieve the desired outcomes and hapū need to think about how they can achieve the necessary collaboration.

## Content

This list is a guideline and hapū (iwi) can make changes, add or delete

- Hapū – the historic narrative defining hapū and the hapū connection to the land and the river – focus for the Plan should be the area in which the hapū had its predominant settlement and mahinga kai (food sources, food resources)
- The hapū today – stands on its own mana, affiliation with a collective with similar historical narrative, goals and aspirations.
- Vision for the hapū
  - The land and the river as it was
  - The land and the river as it is now
  - The land and the river as the hapū would like to see it at some point in the future
- Sites of cultural significance
  - Wāhi tapu, such as urupā (burial sites)
  - Mahinga kai
  - Pā sites, historical places in hapū narrative

## Content Continued

- River health assessment and potential river health monitoring sites to be measured by hapū (applying Cultural Health Index or western science)
- Opportunities to improve river health
  - Alternative land uses to reduce non point discharges, wetland restoration, riparian planting, fencing, bush regeneration, etc.
  - Point source discharges
  - Education + community awareness
- Projects – short term – medium term – long term
  - Hapū led – no outside involvement required
  - Hapū led in collaboration with other agencies
  - Led by non hapū organisation with hapū involvement

## Useful Information to go into the Appendix

- Contact and skills list of hapū members
- Plant lists – what was the original vegetation in the area
- Māori land blocks – lease review dates
- Reserves
- Resource consents in the area and their renewal dates
- List of Agencies (government and non government) relevant to the hapū
- Funding sources and when applications open and close
- List of useful websites for research (e.g. Landcare Research mapping tools or HRC water monitoring site)

## What We also Need to Consider

- Planning budgets
- Lodge plans with councils, etc.
- Project templates
- Capacity building for planning process e.g. through a series of wānanga:
  - How to do a plan – developing skills on the ground
  - Cultural health Index (CHI)
  - Waste water management alternatives – Kepa Morgan
  - Native Trees and plants – what belongs into the catchment?
  - Alternative income streams